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THE

EDINBURGH REVIEW,

APRIL 1805.

N^o XI.

ART. I. *The Lay of the Last Minstrel: a Poem.* By Walter Scott, Esquire. 4to. pp. 318. Edinburgh, Constable & Co. London, Longman & Co. 1805.

WE consider this poem as an attempt to transfer the refinements of modern poetry to the matter and the manner of the antient metrical romance. The author, enamoured of the lofty visions of chivalry, and partial to the strains in which they were formerly embodied, seems to have employed all the resources of his genius in endeavouring to recal them to the favour and admiration of the public, and in adapting to the taste of modern readers, a species of poetry which was once the delight of the courtly, but has long ceased to gladden any other eyes than those of the scholar and the antiquary. This is a romance, therefore, composed by a minstrel of the present day; or such a romance as we may suppose would have been written in modern times, if that style of composition had continued to be cultivated, and partaken consequently of the improvements which every branch of literature has received since the time of its desertion.

Upon this supposition, it was evidently Mr Scott's business to retain all that was good, and to reject all that was bad in the models upon which he was to form himself; adding, at the same time, all the interest and the beauty which could possibly be assimilated to the manner and spirit of his original. It was his duty, therefore, to reform the rambling, obscure, and interminable narratives of the ancient romancers,—to moderate their digressions,—to abridge or retrench their unmerciful or needless descriptions,—and to expunge altogether those feeble and prosaic passages, the rude stupidity of which is so apt to excite the derision of a modern reader: at the same time he was to rival, if

he could, the force and vivacity of their minute and varied representations—the characteristic simplicity of their pictures of manners—the energy and conciseness with which they frequently describe great events—and the lively colouring and accurate drawing by which they give the effect of reality to every scene they undertake to delineate. In executing this arduous task, he was permitted to avail himself of all that variety of style and manner which had been sanctioned by the ancient practice, and bound to embellish his performance with all the graces of diction and versification which could be reconciled to the simplicity and familiarity of the minstrel's song.

With what success Mr Scott's efforts have been attended in the execution of this adventurous undertaking, our readers perhaps will be better able to judge in the sequel: but, in the mean time, we may safely venture to assert, that he has produced a very beautiful and entertaining poem, in a style which may fairly be considered as original, and which will be allowed to afford satisfactory evidence of the genius of the author, even though he should not succeed in converting the public to his own opinion as to the interest or dignity of the subject. We are ourselves inclined indeed to suspect that his partiality for the strains of antiquity, has imposed a little upon the severity of his judgement, and impaired the beauty of the present imitation, by directing his attention rather to what was characteristic, than to what was unexceptionable in his originals. Though he has spared too many of their faults, however, he has certainly improved upon their beauties: and while we can scarcely help regretting, that the feuds of Border chieftains should have monopolized as much poetry as might have served to immortalize the whole baronage of the empire, we are the more inclined to admire the interest and magnificence which he has contrived to communicate to a subject so unpromising.

Whatever may be thought of the conduct of the main story, the manner of introducing it must be allowed to be extremely poetical. An aged minstrel, who had 'harped to King Charles the Good,' and learned to love his art at a time when it was honoured by all that was distinguished in rank or in genius, having fallen into neglect and misery in the evil days of the usurpation, and the more frivolous gayeties or bitter contentions of the succeeding reigns, is represented as wandering about the Border in poverty and solitude a few years after the revolution. In this situation, he is driven, by want and weariness, to seek shelter in the castle of the Dutchess of Buccleuch and Monmouth; and being cheered by the hospitality of his reception, offers to sing 'an ancient strain,' relating to the old warriors of her family;—and

and after some fruitless attempts to recal the long-forgotten melody, pours forth 'the Lay of the Last Minstrel,' in six cantos, very skilfully divided by some recurrence to his own situation, and some complimentary interruptions from his noble auditors.

The construction of a fable seems by no means the *forte* of our modern poetical writers: and no great artifice, in that respect, was to be expected, perhaps, from an imitator of the ancient romancers. Mr Scott, indeed, has himself insinuated, that he considered the story as an object of very subordinate importance, and that he was less solicitous to deliver a regular narrative, than to connect such a series of incidents as might enable him to introduce the manners he had undertaken to delineate, and the imagery with which they were associated. Though the conception of the fable is, probably from these causes, exceedingly defective, it seems necessary to lay a short sketch of it before our readers, both for the gratification of their curiosity, and to facilitate the application of the remarks we may be afterwards tempted to offer.

Sir Walter Scott of Buccleuch, the Lord of Brankfome, was slain in a skirmish with the Cars about the middle of the sixteenth century. He left a daughter of matchless beauty, an infant son, and a high-minded dame of a widow, who, though a very vigorous and devout person, was privately addicted to the study of magic, in which she had been initiated by her father. Lord Cranstoun their neighbour was at feud with the whole clan of Scott, but had fallen desperately in love with the daughter, who returned his passion with equal sincerity and ardour, though withheld, by her duty to her mother, from uniting her destiny with his. The poem opens with a description of the warlike establishment of Brankfome-hall; and the first incident which occurs, is a dialogue between the *spirits* of the adjoining mountain and river, who, after consulting the stars, declare that no good fortune can ever bless the mansion, 'till pride be quelled, and love be free.' The lady, whose forbidden studies had taught her to understand the language of those speakers, overhears this conversation, and vows, if possible, to retain her purpose in spite of it. She calls a gallant knight of her train, therefore, and directs him to ride immediately to the abbey of Melrose, and there to ask, from the monk of St Mary's aisle, the mighty book that was hid in the tomb of the wizard Michael Scott. The remainder of the first canto is occupied with the night journey of the warrior. When he delivers his message, the monk appears filled with consternation and terror, but leads him at last through many galleries and chapels to the spot where the wizard was interred, and,

after some account of his life and character, the warrior heaves up the tomb-stone, and is dazzled by the streaming splendour of an ever-burning lamp, which illuminates the sepulchre of the enchanter. With trembling hand he takes the book from the side of the deceased, and hurries home with it in his bosom.

In the mean time, Lord Cranstoun and the lovely Margaret have met at dawn in the woods adjacent to the castle, and are repeating their vows of true love, when they are startled by the approach of a horseman. The lady retreats, and the lover advancing, finds it to be the messenger from Brankfome, with whom, as an hereditary enemy, he thinks it necessary to enter immediately into combat. The poor knight, fatigued with his nocturnal adventures, is dismounted at the first shock, and falls desperately wounded to the ground, while Lord Cranstoun, relenting towards the kinsman of his beloved, directs his page to attend him to the castle, and gallops home before any alarm can be given. Lord Cranstoun's page is something unearthly. It is a little misshapen dwarf, whom he found one day when he was hunting, in a solitary glen, and took home with him. It never speaks, except now and then to cry 'Loft! loft! loft!' and is on the whole a hateful, malicious little urchin, with no one good quality but his unaccountable attachment and fidelity to his master. This personage, on approaching the wounded Borderer, discovers the mighty book in his bosom, which he finds some difficulty in opening, and has scarcely had time to read a single spell in it, when he is struck down by an invisible hand, and the clasps of the magic volume shut suddenly more closely than ever. This one spell, however, enables him to practise every kind of illusion. He lays the wounded knight on his horse, and leads him into the castle, while the warders see nothing but a wain of hay. He throws him down, unperceived, at the door of the lady's chamber, and turns to make good his retreat. In passing through the court, however, he sees the young heir of Buccleuch at play, and assuming the form of one of his companions, tempts him to go out with him to the woods, where, as soon as they pass a rivulet, he resumes his own shape, and bounds away. The bewildered child is met by two English archers, who make prize of him, and carry him off, while the goblin page returns to the castle, and personates the young baron, to the great annoyance of the whole inhabitants.

The lady finds the wounded knight, and eagerly employs charms for his recovery, that she may learn the story of his disaster. The lovely Margaret, in the mean time, is sitting on her turret, gazing on the western star, and musing on the scenes of the morning, when she discovers the blazing beacons that announce the approach of an English enemy. The alarm is immediately

diately given, and bustling preparation made throughout the mansion for defence. The English force under the command of the Lords Howard and Dacre, speedily appears before the castle, leading with them the young Buccleugh, and propose that the lady should either give up Sir William of Deloraine (who had been her messenger to Melrose), as having incurred the guilt of march treason, or receive an English garrison within her walls. She answers, with much spirit, that her kinsman will clear himself of the imputation of treason by single combat, and that no foe shall ever get admittance into her fortress. The English Lords, being secretly apprised of the approach of powerful succours to the besieged, agree to the proposal of the combat, and stipulate that the boy shall be restored to liberty or detained in bondage, according to the issue of the battle. The lists are appointed for the ensuing day; and a truce being proclaimed in the mean time, the opposite bands mingle in hospitality and friendship.

Deloraine being wounded, was expected to appear by his champion; and some contention arises for the honour of that substitution. This, however, is speedily terminated by a person in the armour of that warrior, who encounters the English champion, slays him, and leads his captive chieftain to the embraces of his mother. At this moment Deloraine himself appears, half-clothed and unarmed, to claim the combat which has been terminated in his absence, and all flock around the stranger who had personated him so successfully. He unclasps his helmet; and behold! Lord Cranstoun of Teviotside! The lady, overcome with gratitude, and the remembrance of the spirits' prophecy, consents to forego the feud, and to give the fair hand of Margaret to that of the enamoured Baron. The rites of betrothment are then celebrated with great magnificence, and a splendid entertainment given to all the English and Scottish chieftains whom the alarm had assembled at Brankfome. Lord Cranstoun's page plays several unlucky tricks during the festival, and breeds some dissension among the warriors. To sooth their ireful mood, the minstrels are introduced, who recite three ballad pieces of considerable merit. Just as their songs are ended, a supernatural darkness spreads itself through the hall, a tremendous flash of lightning and peal of thunder ensue, which break just on the spot where the page had been seated, who is heard to cry 'Found! found! found!' and is no more to be seen, when the darkness clears away. The whole party is chilled with terror at this extraordinary incident; and Deloraine protests that he distinctly saw the figure of the ancient wizard Michael Scott in the middle of the lightning. The lady renounces for ever the unhallowed study of magic; and all the chieftains, struck with awe and consternation, vow to make a pil-

grimace to Melrose to implore rest and forgiveness for the spirit of the departed forcerer. With the description of this ceremony the minstrel closes his 'Lay.'

From this little sketch of the story, our readers will easily perceive, that, however well calculated it may be for the introduction of picturesque imagery, or the display of extraordinary incident, it has but little pretension to the praise of a regular or coherent narrative. The magic of the lady, the midnight visit to Melrose, and the mighty book of the enchanter, which occupy nearly one third of the whole poem, and engross the attention of the reader for a long time after the commencement of the narrative, are of no use whatsoever in the subsequent development of the fable, and do not contribute, in any degree, either to the production or explanation of the incidents that follow. The whole character and proceedings of the goblin page, in like manner, may be considered as merely episodic; for though he is employed in some of the subordinate incidents, it is remarkable that no material part of the fable requires the intervention of supernatural agency. The young Buccleuch might have wandered into the wood, although he had not been decoyed by a goblin; and the dame might have given her daughter to the deliverer of her son, although she had never listened to the prattlement of the river and mountain spirit. There is, besides all this, a great deal of gratuitous and digressive description, and the whole sixth canto may be said to be redundant. The story naturally concludes with the union of the lovers; and the account of the feast, and the minstrelsy that solemnized their betrothment, is a sort of epilogue, superadded after the catastrophe is complete.

But though we feel it to be our duty to point out these obvious defects in the structure of the fable, we have no hesitation in conceding to the author, that the fable is but a secondary consideration in performances of this nature. A poem is intended to please by the images it suggests, and the feelings it inspires; and if it contain delightful images and affecting sentiments, our pleasure will not be materially impaired by some slight want of probability or coherence in the narrative by which they are connected. The *calida junctura* of its members is a grace, no doubt, which ought always to be aimed at; but the quality of the members themselves is a consideration of far higher importance, and that by which alone the character of the work must be ultimately decided. The adjustment of a fable may indicate the industry or the judgment of the writer, but the genius of the poet can only be shewn in his management of its successive incidents. In these more essential particulars, Mr Scott's merits, we think, are unequivocal: he writes throughout

throughout with the spirit and the force of a poet; and though he occasionally discovers a little too much, perhaps, of the 'brave neglect,' and is frequently inattentive to the delicate propriety and scrupulous correctness of his diction, he compensates for those defects by the fire and animation of his whole composition, and the brilliant colouring and prominent features of the figures with which he has enlivened it. We shall now proceed to lay before our readers some of the passages which have made the greatest impression on our own minds, subjoining, at the same time, such observations as they have most forcibly suggested.

In the very first rank of poetical excellence, we are inclined to place the introductory and concluding lines of every canto, in which the antient strain is suspended, and the feelings and situation of the minstrel himself described in the words of the author. The elegance and the beauty of this *setting*, if we may so call it, though entirely of modern workmanship, appears to us to be fully more worthy of admiration than the bolder relief of the antiques which it encloses, and leads us to regret that the author should have wasted, in imitation and antiquarian researches, so much of those powers which seem fully equal to the task of raising him an independent reputation. In confirmation of these remarks, we give a considerable part of the introduction to the whole poem.

• The way was long, the wind was cold,
 The Minstrel was infirm and old;
 His withered cheek, and tresses gray,
 Seemed to have known a better day;
 The harp, his sole remaining joy,
 Was carried by an orphan boy.
 The last of all the Bards was he,
 Who sung of Border chivalry;
 For, well-a-day! their date was fled,
 His tuneful brethren all were dead;
 And he, neglected and oppressed,
 Wished to be with them, and at rest.
 No more, on prancing palfrey borne,
 He carolled, light as lark at morn;
 No longer, courted and caressed,
 High placed in hall, a welcome guest,
 He poured, to lord and lady gay,
 The unpremeditated lay;
 Old times were changed, old manners gone,
 A stranger filled the Stuart's throne;
 The bigots of the iron time
 Had called his harmless art a crime.
 A wandering harper, scorned and poor,

He begged his bread from door to door ;
And tuned, to please a peasant's ear,
The harp, a King had loved to hear.' p. 3-4.

After describing his introduction to the presence of the Dutchess,
and his offer to entertain her with his music, the description pro-
ceeds,

' The humble boon was soon obtained ;
The aged Minstrel audience gained.
But, when he reached the room of state,
Where she, with all her ladies, sat,
Perchance he wished his boon denied ;
For, when to tune his harp he tried,
His trembling hand had lost the ease
Which marks security to please ;
And scenes, long past, of joy and pain,
Came wildering o'er his aged brain—

Amid the strings his fingers strayed,
And an uncertain warbling made—
And oft he shook his hoary head.
But when he caught the measure wild,
The old man raised his face, and smiled ;
And lightened up his faded eye,
With all a poet's extacy !

In varying cadence, soft or strong,
He swept the sounding chords along ;
The present scene, the future lot,
His toils, his wants, were all forgot ;
Cold diffidence, and age's frost,
In the full tide of song were lost.
Each blank, in faithless memory void,
The poet's glowing thought supplied ;
And, while his harp responsive rung,

'Twas thus the *LATEST MINSTREL* sung.' p. 6-8.

We add, chiefly on account of their brevity, the following
lines, which immediately succeed the description of the funeral
rites of the English champion.

' The harp's wild notes, though hushed the song,
The mimic march of death prolong ;
Now seems it far, and now a-near,
Now meets, and now eludes the ear ;
Now seems some mountain's side to sweep,
Now faintly dies in valley deep ;
Seems now as if the Minstrel's wail,
Now the sad requiem loads the gale ;
Last, o'er the warrior's closing grave,
Rung the full choir in choral slave.' p. 155-156.

The close of the whole poem is as follows :

‘ Hushed is the harp—the Minstrel gone.
And did he wander forth alone?
Alone, in indigence and age,
To linger out his pilgrimage ?
No—close beneath proud Newark’s tower,
Arose the Minstrel’s lowly bower ;
A simple hut ; but there was seen
The little garden hedged with green,
The cheerful hearth, and lattice clean.
There sheltered wanderers, by the blaze,
Oft heard the tale of other days ;
For much he loved to ope his door,
And give the aid he begged before,
So passed the winter’s day—but still,
When summer smiled on sweet Bowhill,
And July’s eve, with balmy breath,
Waved the blue-bells on Newark heath ;
And flourished, broad, Blackandro’s oak,
The aged Harper’s soul awoke !
Then would he sing achievements high,
And circumstance of Chivalry,
Till the rapt traveller would stay,
Forgetful of the closing day ;
And Yarrow, as he rolled along,
Bore burden to the Minstrel’s song. ’ p. 193-4.

Besides these, which are altogether detached from the lyric effusions of the minstrel, some of the most interesting passages of the poem are those in which he drops the business of his story, to moralize, and apply to his own situation the images and reflections it has suggested. After concluding one canto with an account of the warlike array which was prepared for the reception of the English invaders, he opens the succeeding one with the following beautiful verses :

‘ Sweet Teviot ! on thy silver tide,
The glaring bale-fires blaze no more ;
No longer steel-clad warriors ride
Along thy wild and willowed shore ;
Where’er thou wind’st by dale or hill,
All, all is peaceful, all is still,
As if thy waves, since Time was born,
Since first they rolled their way to Tweed,
Had only heard the shepherd’s reed,
Nor started at the bugle-horn.
Unlike the tide of human time,
Which, though it change in ceaseless flow,

Retains each grief, retains each crime,
 Its earliest course was doomed to know ;
 And, darker as it downward bears,
 Is stained with past and present tears.
 Low as that tide has ebb'd with me,
 It still reflects to memory's eye
 The hour, my grave, my only boy,
 Fell by the side of great Dundee.
 Why, when the volleying musket played
 Against the bloody Highland blade,
 Why was not I beside him laid !—
 Enough—he died the death of fame ;
 Enough—he died with conquering Græme.' p. 93. 94.

There are several other detached passages of equal beauty, which might be quoted in proof of the effect which is produced by this dramatic interference of the narrator ; but we hasten to lay before our readers some of the more characteristic parts of the performance.

The ancient romance owes much of its interest to the lively picture which it affords of the times of chivalry, and of those usages, manners and institutions which we have been accustomed to associate in our minds, with a certain combination of magnificence with simplicity, and ferocity with romantic honour. The representations contained in those performances, however, are for the most part too rude and naked to give complete satisfaction. The execution is always extremely unequal ; and though the writer sometimes touches upon the appropriate feeling with great effect and felicity, still this appears to be done more by accident than design ; and he wanders away immediately into all sorts of ludicrous or uninteresting details, without any apparent consciousness of incongruity. These defects Mr Scott has corrected with admirable address and judgment in the greater part of the work now before us : and while he has exhibited a very striking and impressive picture of the old feudal usages and institutions, he has shewn still greater talent in engrafting upon those descriptions all the tender or magnanimous emotions to which the circumstances of the story naturally give rise. Without impairing the antique air of the whole piece, or violating the simplicity of the ballad style, he has contrived, in this way, to impart a much greater dignity, and more powerful interest to his production, than could ever be attained by the unskilful and unsteady delineations of the old romancers. Nothing, we think, can afford a finer illustration of this remark, than the opening stanzas of the whole poem ; they transport us at once into the days of knightly daring
 and

and feudal hostility, at the same time that they suggest, in a very interesting way, all those softer sentiments which arise out of some parts of the description.

' The feast was over in Branksome tower,
And the Ladye had gone to her secret bower ;
Her bower, that was guarded by word and by spell,
Deadly to hear, and deadly to tell—
Jesu Maria, shield us well !
No living wight, save the Ladye alone,
Had dared to cross the threshold stone.

The tables were drawn, it was idlese all ;
Knight, and page, and household squire,
Loitered through the lofty hall,
Or crowded round the ample fire.
The stag-hounds, weary with the chase,
Lay stretched upon the rushy floor,
And urged, in dreams, the forest race,
From Teviot-stone to Eskdale-moor.' p. 9. 10.

After a very picturesque representation of the military establishment of this old baronial fortress, the minstrel proceeds :

' Many a valiant knight is here ;
But he, the Chieftain of them all,
His sword hangs rusting on the wall,
Beside his broken spear.
Bards long shall tell,
How Lord Walter fell !
When startled burghers fled, afar,
The furies of the Border war ;
When the streets of high Dunedin
Saw lances gleam, and falchions redden,
And heard the slogan's deadly yell—
Then the Chief of Branksome fell.

- Can piety the discord heal,
Or staunch the death-feud's enmity ?
Can Christian lore, can patriot zeal,
Can love of blessed charity ?
No ! vainly to each holy shrine,
In mutual pilgrimage, they drew ;
Implored, in vain, the grace divine
For chiefs, their own red falchions slew.
While Cessford owns the rule of Car,
While Ettrick boasts the line of Scott,
The slaughtered chiefs, the mortal jar,
The havoc of the feudal war,
Shall never, never be forgot !

In sorrow o'er Lord Walter's bier,
 The warlike forefathers had bent ;
 And many a flower and many a tear,
 Old Teviot's maids and matrons lent :
 But, o'er her warrior's bloody bier,
 The Ladye dropped nor sigh nor tear !
 Vengeance, deep-brooding o'er the slain,
 Had locked the source of softer woe ;
 And burning pride, and high disdain,
 Forbade the rising tear to flow ;
 Until, amid his sorrowing clan,
 Her son lisped from the nurse's knee—
 " And, if I live to be a man,
 " My father's death revenged shall be ! "
 Then fast the mother's tears did tick
 'To dew the infant's kindling cheek.' p. 12—15.

There are not many passages in English poetry more impressive than some parts of this extract. As another illustration of the prodigious improvement which the style of the old romance is capable of receiving from a more liberal admixture of pathetic sentiments and gentle affections, we insert the following passage, where the effect of the picture is finely assisted by the contrast of its two compartments.

- ' So passed the day—the evening fell,
 'Twas near the time of curfew bell ;
 The air was mild, the wind was calm,
 The stream was smooth, the dew was balm ;
 E'en the rude watchman, on the tower,
 Enjoyed and blessed the lovely hour.
 Far more fair Margaret loved and blessed
 The hour of silence and of rest.
 On the high turret, sitting lone,
 She waked at times the lute's soft tone ;
 Touched a wild note, and all between
 Thought of the bower of hawthorn's green ;
 Her golden hair streamed free from band,
 Her fair cheek rested on her hand,
 Her blue eyes sought the west afar,
 For lovers love the western star.
- ' Is yon the star o'er Pencyrff-Pen,
 That rises slowly to her ken,
 And, spreading broad its wavering light,
 Shakes its loose tresses on the night ?
 Is yon red glare the western star ?—
 O, 'tis the beacon-blaze of war !

Scarce could she draw her tightened breath ;
For well she knew the fire of death !

- ‘ The warder viewed it blazing strong,
And blew his war-note loud and long,
Till, at the high and haughty sound,
Rock, wood and river, rung around ;
The blast alarmed the festal hall,
And startled forth the warriors all ;
Far downward in the castle-yard,
Full many a torch and cresset glared ;
And helms and plumes, confusedly tossed,
Were in the blaze half seen, half lost ;
And spears in wild disorder shook,
Like reeds beside a frozen brook.
- ‘ The Seneschal, whose silver hair
Was reddened by the torches’ glare,
Stood in the midst, with gesture proud,
And issued forth his mandates loud—
“ On Penchryft glows a bale of fire,
And three are kindling on Priestthaughswire,” &c. p. 83-45.

In these passages, the poetry of Mr Scott is entitled to a decided preference over that of the earlier minstrels, not only from the greater consistency and condensation of his imagery, but from an intrinsic superiority in the nature of his materials. From the improvement of taste, and the cultivation of the finer feelings of the heart, poetry acquires, in a refined age, many new and invaluable elements, which are necessarily unknown in a period of greater simplicity. The description of external objects, however, is at all times equally inviting, and equally easy ; and many of the pictures which have been left by the ancient romancers, must be admitted to possess, along with great diffuseness and homeliness of diction, an exactness and vivacity which cannot be easily exceeded. In this part of his undertaking, Mr Scott therefore had fewer advantages ; but we do not think that his success has been less remarkable. In the following description of Melrose, which introduces the second canto, the reader will observe how skilfully he calls in the aid of sentimental associations to heighten the effect of the picture which he presents to the eye.

- ‘ If thou would’st view fair Melrose aright,
Go visit it by the pale moon-light ;
For the gay beams of lightsome day
Gild, but to flout, the ruins gray.
When the broken arches are black in night,
And each shafted oriel glimmers white ;

When

When the cold light's uncertain shower
 Streams on the ruined central tower ;
 When buttress and buttress, alternately,
 Seem framed of ebon and ivory ;
 When silver edges the imagery,
 And the scrolls that teach thee to live and die ;
 When distant Tweed is heard to rave,
 And the owlet to hoot o'er the dead man's grave ;
 Then go—but go alone the while—
 Then view St David's ruined pile ;
 And home returning, foothly swear,
 Was never scene so sad and fair !' p. 35, 36.

In the following passage he is less ambitious, and confines himself, as an ancient minstrel would have done on the occasion, to a minute and picturesque representation of the visible object before him.

• When for the lists they fought the plain,
 The stately Ladye's silken rein
 Did noble Howard hold ;
 Unarmed by her side he walked,
 And much in courteous phrase, they talked
 Of feats of arms of old.
 Costly his garb—his Flemish ruff
 Fell o'er his doublet shaped of buff,
 With satin slashed, and lined ;
 Tawny his boot, and gold his spur,
 His cloak was all of Poland fur,
 His hose with silver twined ;
 His Bilboa blade, by Marchmen felt,
 Hung in a broad and studded belt ;
 Hence, in rude phrase, the Borderers still
 Called noble Howard, Belted Will.' p. 141.

The same scrupulous adherence to the style of the old romances, though greatly improved in point of brevity and selection, is discernible in the following animated description of the feast, which terminates the poem.

The spousal rites were ended soon :
 'Twas now the merry hour of noon,
 And in the lofty-arched hall
 Was spread the gorgeous festival :
 Steward and squire, with heedful haste,
 Marshalled the rank of every guest ;
 Pages, with ready blade, were there,
 The mighty meal to carve and share.
 O'er capon, heron-sheep, and crane,
 And princely peacock's gilded train,

And

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And o'er the boar's-head, garnished brave,
And cygnet from St Mary's wave ;
O'er ptarmigan and venison,
The priest had spoke his benison.
Then rose the riot and the din,
Above, beneath, without, within !
For, from the lofty balcony,
Rung trumpet, shalm, and psaltery ;
Their clanging bowls old warriors quaffed,
Loudly they spoke, and loudly laughed ;
Whispered young knights, in tone more mild,
To ladies fair, and ladies smiled.
The hooded hawks, high perched on beam,
The clamour joined with whistling scream,
And flapped their wings, and shook their bells,
In concert with the staghounds' yells.
Round go the flasks of ruddy wine,
From Bourdeaux, Orleans, or the Rhine ;
Their tasks the busy sewers ply,
And all is mirth and revelry.' p. 166-7.

The following picture is sufficiently antique in its conception, but the execution is evidently modern.

' Ten of them were sheathed in steel,
With belted sword, and spur on heel :
They quitted not their harness bright,
Neither by day, nor yet by night :
They lay down to rest
With corslet laced,
Pillowed on buckler cold and hard ;
They carved at the meal
With gloves of steel,
And they drank the red wine through the helmet barred.'

The whole scene of the duel or judicial combat, is conducted according to the strict ordinances of chivalry, and delineated with all the minuteness of an ancient romancer. The modern reader will probably find it rather tedious ; all but the concluding stanzas, which are in a loftier measure.

' 'Tis done, 'tis done ! that fatal blow
Has stretched him on the bloody plain ;
He strives to rise—Brave Musgrave, no !
Thence never shalt thou rise again !
He chokes in blood—Some friendly hand
Undo the visor's barred band,
Unfix the gorget's iron clasp,
And give him room for life to gasp !—

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In vain, in vain—haste, holy friar,
Haste, ere the sinner shall expire !
Of all his guilt let him be shriven,
And smoothe his path from earth to heaven.

In haste the holy friar sped,
His naked foot was dyed with red,
As through the lists he ran ;
Unmindful of the shouts on high,
That hailed the conqueror's victory,
He raised the dying man ;
Loose waved his silver beard and hair,
As o'er him he kneeled down in prayer.
And still the crucifix on high,
He holds before his darkening eye,
And still he bends an anxious ear,
His faltering penitence to hear ;
Still props him from the bloody sod,
Still, even when soul and body part,
Pours ghostly comfort on his heart,
And bids him trust in God !
Unheard he prays : 'tis o'er, 'tis o'er !
Richard of Musgrave breathes no more. ' p. 145-47.

We have already made so many extracts from this poem, that we can now only afford to present our readers with one specimen of the songs which Mr Scott has introduced in the mouths of the minstrels, in the concluding canto. It is his object, in these pieces, to exemplify the different styles of ballad narrative which prevailed in this island at different periods, or in different conditions of society. The first is constructed upon the rude and simple model of the old Border ditties, and produces its effect by the direct and concise narrative of a tragical occurrence. The second, sung by Fitztraver, the bard of the accomplished Surrey, has more of the richness and polish of the Italian poetry, and is very beautifully written in a stanza resembling that of Spenser. The third is intended to represent that wild style of composition which prevailed among the bards of the northern continent, somewhat softened and adorned by the minstrel's residence in the south. We prefer it, upon the whole, to either of the two former, and shall give it entire to our readers, who will probably be struck with the poetical effect of the dramatic form into which it is thrown, and of the indirect description by which every thing is most expressively told, without one word of distinct narrative.

O listen, listen, ladies gay !
No haughty feat of arms I tell ;

Soft

Soft is the note, and sad the lay,
 That mourns the lovely Rosabelle.
 —“ Moor, moor the barge, ye gallant crew !
 And, gentle ladye, deign to stay !
 Rest thee in Castle Ravensheuch,
 Nor tempt the stormy frith to-day.
 “ The blackening wave is edged with white ;
 To inch * and rock the sea-mews fly ;
 The fishers have heard the Water-Sprite,
 Whose screams forebode that wreck is nigh.
 “ Lall night the gifted seer did view
 A wet shroud rolled round ladye gay ;
 Then stay thee, fair, in Ravensheuch :
 Why crows the gloomy frith to-day ? ” —
 —“ ’Tis not because Lord Lindeſay’s heir
 To-night at Roſlin leads the ball,
 But that my ladye-mother there
 Sits lonely in her caſtle-hall.
 “ ’Tis not because the ring they ride,
 And Lindeſay at the ring rides well,
 But that my ſire the wine will chide,
 If ’tis not filled by Roſabelle. ” —
 O’er Roſlin all that dreary night
 A wondrous blaze was ſeen to gleam ;
 ’Twas broader than the watch-fire light,
 And brighter than the bright moon-beam,
 It glared on Roſlin’s caſtled rock,
 It reddened all the copſe-wood glen ;
 ’Twas ſeen from Dryden’s groves of oak,
 And ſeen from caverned Hawthornden.
 Seemed all on fire that chapel proud,
 Where Roſlin’s chiefs unconfined lie ;
 Each Baron, for a ſable ſhroud,
 Sheathed in his iron panoply.
 Seemed all on fire within, around,
 Both vaulted crypt and altar’s pale ;
 Shone every pillar foliage-bound,
 And glimmered all the dead-men’s mail.
 Blazed battlement and pinnet high,
 Blazed every roſe-carved buttreſs fair—
 So ſtill they blaze when fate is nigh
 The lordly line of high St Clair.
 There are twenty of Roſlin’s barons bold
 Lie buried within that proud chapelle ;
 Each one the holy vault doth hold—
 But the ſea holds lovely Roſabelle !
 And each St Clair was buried there,

* 10.

With candle, with book, and with knell ;
 But the Kelpy rung, and the Merma'd sung
 The dirge of lovely Rosabelle.' p. 181-184.

From the various extracts we have now given, our readers will be enabled to form a tolerably correct judgement of this poem; and if they are pleased with those portions of it which have now been exhibited, we may venture to assure them that they will not be disappointed by the perusal of the whole. The whole night-journey of Deloraine—the opening of the wizard's tomb—the march of the English battle—and the parley before the walls of the castle, are all executed with the same spirit and poetical energy, which we think is conspicuous in the specimens we have already extracted: and a great variety of short passages occurs in every part of the poem, which are still more striking and meritorious, though it is impossible to detach them, without injury, in the form of a quotation. It is but fair to apprise the reader, on the other hand, that he will meet with very heavy passages, and with a variety of details which are not likely to interest any one but a Borderer or an antiquary. We like very well to hear 'of the Gallant Chief of Otterburne,' or 'the Dark Knight of Liddesdale,' and feel the elevating power of great names, when we read of the tribes that mustered to the war, 'beneath the crest of old Dunbar, and Ikeburn's mingled banners.' But we really cannot so far sympathise with the local partialities of the author, as to feel any glow of patriotism or ancient virtue in hearing of the *Todrig* or *Johnston* clans, or of *Elliotts*, *Armstrongs*, and *Tinlins*; still less can we relish the introduction of *Black John of Athelstane*, *Whitblade the Hawk*, *Arthur-fire-the-braes*, *Red Roland Forster*, or any other of those worthies who

'Sought the heeves that made their broth,
 In Scotland and in England both,'

into a poem which has any pretensions to seriousness or dignity. The ancient metrical romance might have admitted these homely personalities; but the present age will not endure them; and Mr Scott must either sacrifice his Border prejudices, or offend all his readers in the other parts of the empire.

There are many passages, as we have already insinuated, which have the general character of heaviness, such as the minstrel's account of his preceptor, and Deloraine's lamentation over the dead body of Muirgrave: but the goblin page is, in our opinion, the capital deformity of the poem. We have already said that the whole machinery is useless; but the magic studies of the lady, and the rifled tomb of Michael Scott, give occasion to so much admirable poetry, that we can on no account consent to part with them.

them. The page, on the other hand, is a perpetual burden to the poet, and to the reader: it is an undignified and improbable fiction, which excites neither terror, admiration, nor astonishment, but needlessly debases the strain of the whole work, and excites at once our incredulity and contempt. He is not a 'trickly spirit,' like Ariel, with whom the imagination is irresistibly enamoured; nor a tiny monarch, like Oberon, disposing of the destinies of mortals: he rather appears to us to be an awkward sort of a mongrel between Puck and Caliban, of a servile and brutal nature, and limited in his powers to the indulgence of petty malignity and the infliction of despicable injuries. Besides this objection to his character, his existence has no support from any general or established superstition. Fairies and devils, ghosts, angels and witches, are creatures with whom we are all familiar, and who excite in all classes of mankind emotions with which we can easily be made to sympathise. But the story of Gilpin Horner was never believed out of the village where he is said to have made his appearance, and has no claims upon the credulity of those who were not originally of his acquaintance. There is nothing at all interesting or elegant in the scenes of which he is the hero; and in reading these passages, we really could not help suspecting that they did not stand in the romance when the aged minstrel recited it to the royal Charles and his mighty earls, but were inserted afterwards to suit the taste of the cottagers among whom he begged his bread on the Border. We entreat Mr Scott to inquire into the grounds of this suspicion, and to take advantage of any decent pretext he can lay hold of for purging 'the Lay' of this ungraceful intruder. We would also move for a *Quo Warranto* against the spirits of the river and the mountain; for though they are come of a very high lineage, we do not know what lawful business they could have at Branksome castle in the year 1550.

Of the diction of this poem we have but little to say. From the extracts we have already given, our readers will perceive that the versification is in the highest degree irregular and capricious. The nature of the poem entitled Mr Scott to some license in this respect, and he often employs it with a very pleasing effect; but he has frequently exceeded its just measure, and presented us with such combinations of metre, as must put the teeth of his readers, we think, into some jeopardy. He has, when he pleases, a very melodious and sonorous style of versification, but often composes with inexcusable negligence and rudeness. There is a great number of lines in which the verse can only be made out by running the words together in a very unusual manner; and some appear to us to have no pretension to the name of verses at all.

What apology, for instance, will Mr Scott make for the last of these two lines—

‘ For when in studious mood he paced
St Kentigern’s hall.’

Or for these—

‘ How the brave boy, in future war,
Should tame the unicorn’s pride.’

We have called the negligence which could leave such lines as these in a poem of this nature, inexcusable; because it is perfectly evident, from the general strain of his composition, that Mr Scott has a very accurate ear for the harmony of versification, and that he composes with a facility which must lighten the labour of correction. There are some smaller faults in the diction which might have been as well corrected also: there is too much alliteration; and he reduplicates his words too often. We have ‘ never, never,’ several times; besides, ‘ ’tis o’er, ’tis o’er,’—‘ in vain, in vain ’—‘ ’tis done, ’tis done;’ and several other echoes as ungraceful.

We will not be tempted to say any thing more of this poem. Although it does not contain any great display of what is properly called invention, it indicates perhaps as much vigour and originality of poetical genius as any performance which has been lately offered to the public. The locality of the subject is likely to obstruct its popularity; and the author, by confining himself in a great measure to the description of manners and personal adventures, has forfeited the attraction which might have been derived from the delineation of rural scenery. But he has manifested a degree of genius which cannot be overlooked, and given indication of talents that seem well worthy of being enlisted in the service of the epic muse.

The notes, which contain a great treasure of Border history and antiquarian learning, are too long, we think, for the general reader. The form of the publication is also too expensive; and we hope soon to see a smaller edition, with an abridgement of the notes, for the use of the mere lovers of poetry.

ART. II. *Indagine Fisica su i Colori; coronata del premio dalla Società Italiana di Scienze.* Di Giambattista Venturi, Prof. di Fisica, e Presidente del Gabinetto Fisico nell’ Univ. di Pavia, nella Soc. Ital. di Scienze, &c. &c. &c. Edizione seconda, accresciuta. Modena, An x. Rep. (1801) 8vo.

THE science of Optics, which in the earlier part of the last century occupied so much of the attention of physical inquirers,

ers, his of late years yielded its rank, in the estimation of natural philosophers, to the easier, and, perhaps, in themselves more interesting pursuits of the Pneumatic Chemistry. As long as the latter science can be studied without a previous familiarity with the Mathematics, it is to be feared that the high price which must be paid for the delights of the former, will decide mankind to remain in their present state of indifference to its attractions. They will continue to praise the name of Newton for his immortal discoveries in this branch of knowledge, without once trying to estimate his merits; as they have from the beginning worshipped the author of the *Principia*, without ever imagining that it was a work which was written to be read.

That the knowledge which the '*Treatise of Light*' left us of the subtle element which apparently pervades all finite space, should, under such circumstances, not have been sensibly augmented since his day, will scarcely appear surprising. In some parts of Europe, however, his sublime researches appear to have attracted more attention than in those where we live. The Italian mathematicians have pursued the investigations left unfinished by him, with an ardour and a success unknown in this country. The two inestimable treatises of Comparetti (not to mention the works of Beccaria) present us with discoveries not less important than those of the opticians who preceded Sir Isaac Newton. We refer our readers in particular to his work '*de Luce inflexa et Coloribus*,' published at Ferrara in 1787.* It contains matter which deserves a place in the '*Optics*' itself; and only requires to be somewhat extended and pursued in all its consequences, in order to furnish some future philosopher with as ample materials for new discovery, as Newton obtained from the great work of Grimaldi.

The treatise of Professor Venturi, which is now before us, though much inferior in originality and richness of experiment to the book just now mentioned, is nevertheless a very valuable accession to optical science. It consists of a memoir deservedly crowned by the *Società Italiana*, and an additional chapter of great merit. There is an ingenious essay added, '*On the means by which we judge of space from the sense of bearing*.' This we reserve for another opportunity, and proceed to consider, with some fulness, the optical work.

I. The author begins with a very clear and accurate statement of Sir Isaac Newton's fundamental experiment on the colours

* His other work on *Vision and Colours as connected with it*, was published in 1798; since which time the author died.

lours of thin plates. He then describes the manner in which Du Tour endeavoured to explain this leading phenomenon. That optician conceived the rings of colours and alternate dark intervals to be the result of a simple prismatic refraction. He supposed that the first lens acted like a prism, and separated the incident heterogeneous rays, so as to form a coloured spectrum on the second, from whence it was reflected to the eye placed above both. Professor Venturi adduces no less than five different proofs to shew the insufficiency of this theory. Yet, among all these, it is not a little singular that he omits the most conclusive and the most obvious, viz. the multiplicity of the rings, and the existence of the dark intervals. If common prismatic refraction could produce one image at all resembling a coloured ring in size or position (which it very certainly never could), we should still be at a loss to know whence the succeeding black ring comes, and whence the second coloured ring proceeds; not to mention the coincidence of the coloured rings by transmission with those black spaces by reflexion, and of the black spaces by transmission with the coloured rings by reflexion. Indeed, it may fairly be conjectured, that he who could propose such an explanation, had neither seen the appearance in question, nor formed any thing like a precise idea of it from Sir Isaac Newton's description: the two phenomena are more dissimilar, in every respect, than the colours of thin plates and those of the prismatic spectrum. We have one other remark to offer on this part of our author's inquiry. He asserts that the term, '*fits of easy and of difficult transmission*,' only expresses a fact, and is not of hypothetical origin. It is unquestionably true, that this expression refers to a fact; but it refers to it in a manner purely theoretical; it accounts for, or explains the fact in a way not strictly prescribed by the circumstances, and capable of infinite variations, though those circumstances should remain the same. Nothing, indeed, is advanced repugnant to the phenomenon; but other solutions would agree equally well with it. The problem, for want of sufficient data, is, beyond a certain point, indeterminate; and one of its many solutions has been adopted. All that the facts warrant us to assert is, that plates of a particular thickness reflect, while those of another degree of thickness transmit light; and that those degrees of thickness which transmit, and those which reflect, succeed each other at certain intervals, the one being as the odd, the other as the even numbers in an arithmetical series. But if we proceed a step farther, resolve this fact into a transient quality impressed upon the rays of light, which disposes them at one part of their route to be reflected, at another to be transmitted, we surely do something

thing more than merely express the fact on which all these speculations are founded, viz. the connexion (of what sort we are ignorant) between a certain thickness of plate, and the reflexion of light; and between another definite thickness, and its transmission. Therefore, those philosophers are not so much mistaken as our author imagines, who have denominated the Newtonian theory of fits, an hypothesis. * It would be still more erroneous to call that hypothesis any thing but fine and subtle in the most exquisite degree.—We shall afterwards endeavour to trace the steps which led to it.

The remaining part of our author's first chapter is occupied with some remarks upon the different reflexibility of light. It is known to our readers that this property was demonstrated by Sir Isaac Newton from certain experiments with the prism; that by reflexibility, he does not mean a variation in the direction of the reflected rays, but only a power of being reflected at different angles of incidence; and that subsequent inquirers, observing the necessary part which refraction bore in this process, were led to conclude that the different reflexibility of the rays depended upon, and was identical with their different refrangibility. Professor Venturi examines this position, and endeavours to show by other experiments that it is unfounded. His chief argument is deduced from an experiment performed with a hollow glass vessel filled with water, and containing a plate of glass moveable round one of the angles of the vessel. He receives a beam on the vessel at right angles to one of its sides, and allows it to pass through the water, and fall on the moveable plate, which he inclines to the incident beam until a reflexion begins to take place. He finds that the violet light is first reflected; the red last: and, because no separation of the rays by refraction could be effected when they fell at right angles, he infers that this different reflexion demonstrates the point in question. The ingenuity of this process, however, cannot close our eyes to its fallacy. Any one who attends to the above abstract of it,

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* To remove all doubt on this subject, it will be sufficient to subjoin Sir Isaac Newton's own words: ' Every ray of light acquires, in passing through a refracting surface, a certain transient constitution or disposition, which returns at equal intervals during its progress, and makes it, at each return of that disposition, be easily transmitted through the refracting medium, and in the intervals disposes it to be easily reflected.' Prop. XII. Book II. Part III.

In the subsequent definition, he denominates those dispositions *fits of easy transmission*.

more especially if he compares it with the author's third figure, will be speedily convinced that he has in fact made use of the very form of experiment described in the third proposition of Sir Isaac Newton's *Optics*, book I.; and consequently has added nothing to the evidence of that proposition. The moveable plate forms, together with the anterior side of the vessel, a prism, although truncated below. The ingenious contrivance of giving this prism a moveable refracting angle, permits the experiment to proceed without changing the incidence of the rays on the anterior surface; but there is always a second prism joined to the first; and the bare inspection of the third figure shews what a material part it bears in the process. In short, the objections are not in the least removed by this variation of the experiment. Professor Prevost of Geneva, in the *Philosophical Transactions* for 1798, part II, has given a different and a more satisfactory answer to them, by shewing that the refraction of the first prism ought to render the red rays more reflexible, if all the rays had, independent of the refraction, the same disposition to be reflected. But, in spite of all these reasonings, the radical consideration which first gave rise to the controversy, still recurs. Why does this property, this different reflexivity of light, never appear, unless in conjunction with refraction, and in circumstances where the different refrangibility of the rays cannot fail to operate? It is demanded, why a plain mirror of polished metal, upon being moved round its axis, and exposed to the rays at various degrees of inclination, shews no difference in the different rays? Why, for example, when held at an angle of 85° to the incident beam, is a reflexion produced of the red as well as the violet; and why does the same reflexion continue to take place, although this angle be increased gradually to 79 or $79\frac{1}{2}$ degrees, without the slightest appearance of a blue or greenish tinge in the reflected beam, which must inevitably take place if the red and orange part was more transmissible than the violet? It may be said, that the opaque substance of the speculum reflects all the rays at all angles of incidence. It is therefore admitted, that no light can be absorbed by opaque substances, and that, if the thickness of the speculum be diminished until it becomes transparent, all the light will still be reflected.

But let another example be taken, to which no such objection applies. If the rays differ in degree of reflexivity, why does a piece of glass with parallel sides reflect all the component parts of a white beam, equally, at all inclinations to the incident rays? Why, in this case, is not a separation produced by the reflexion at the anterior surface when it is inclined at a large angle to the incident

incident

incident light? Why does not the reflected beam, in such circumstances, begin to assume a blue and greenish tinge, while the transmitted beam is tinged with red and orange? Such ought undoubtedly to be the fact, if reflexivity was altogether unconnected with refrangibility; for the rays are here supposed to fall on a substance capable either of reflecting or transmitting them; and the anterior surface of the glass always reflects a great portion of the incident light, while the rest passes through; but all the constituent parts of those portions, their red rays as well as their violet rays, are uniformly affected in the very same manner at all angles of incidence. Thus then we see that reflexion alone is not sufficient to produce the phenomenon in question. Is every kind of refraction, when coupled with reflexion, sufficient for this purpose? Certainly not. Let a beam of white light fall on a glass paralleliped, and be transmitted, as it will be without separation, to the opposite side: Let the paralleliped be inclined to the incident light until the angle of incidence is as great as possible. Through all the stages of this inclination white light alone will be reflected—no decomposition takes place—no prevalence of reflexivity is perceived in the violet or blue rays; they are all equally reflected—all equally transmitted. It remains, therefore, to explain what is the specific nature of this different reflexivity, which only makes its appearance in company with refraction, and not in conjunction with every sort of refraction, but only with that kind which of itself separates the heterogeneous rays. Until this very suspicious circumstance can be satisfactorily accounted for, we should disobey those rules of inductive reasoning which our great master himself has taught us, both by his precept and his example, were we to give our unqualified assent to his doctrine of various reflexivity.

Professor Venturi concludes this part of his speculations with an attempt to show that there is nothing inconsistent in these rays being least reflexible which he admits are most deflexible. That there is any thing inconsistent in this, it would be absurd to assert; but he attempts to demonstrate some connexion between the greater deflexibility and the less reflexivity of the red rays, and so forth, in order to conclude that nature is consistent in her operations. We think his failure is as complete as his attempt was unnecessary; and instead of troubling our readers to follow his very vague reasonings on this matter, the only exceptionable thing which we find in his work, we shall content ourselves with observing that he has entirely overlooked the greater *inflexibility* of the less refrangible rays; a property proved to belong to them by the very same experiments whereby the greater

greater deflexibility was discovered. This property at once destroys every part of Professor Venturi's argument.

We shall conclude this branch of the subject by laying before our readers a theory, which we think warranted by the phenomena, and sufficient to explain the different appearances exhibited by those singular experiments on thin plates, which compose the second book of the Optics. It is recommended by its simplicity, and is in some degree authorised by the ideas partially unfolded in that immortal work. Various incidental observations, scattered over the concluding speculations of Sir Isaac Newton, suggest the remark, that one experiment only upon the phenomena of Flexion was wanting to have made him draw the inferences which we are now about to submit.

When light falls upon thin plates, whose thickness gradually increases within certain narrow limits, and is transmitted through them, it is formed into fringes or rings with dark intervals and of regularly increasing sizes. When the light is homogeneous, the fringes are of the single colour that falls on the plates, but larger in proportion as that light is of a less refrangible colour. When the light is heterogeneous, it is separated into its component parts in the act of forming the fringes, and the fringes are coloured variously accordingly. To the dark intervals, seen by this transmission, correspond fringes, when the plates are viewed by reflected light; and to the fringes seen by transmission, correspond dark intervals by reflexion. It is clear, therefore, that the incident light is alternately reflected and transmitted; reflected at certain thicknesses of the plate, transmitted at others; and always decomposed, if heterogeneous, both by the reflexion and the transmission.

When light passes by the edge of a body, at distances gradually increasing, within certain narrow limits, it is formed into fringes exactly resembling those above described. They are parallel to the edge of the body; uniformly coloured, if the light was homogeneous, and larger in proportion as the colour is of a less refrangible kind. They are of different colours if the light was heterogeneous, and the colours are disposed in the same order of succession as in the former case. These fringes are of two kinds; they are either formed by inflexion or by deflexion. The former have their colours arranged like the rings formed by transmission in thin plates; the latter have their colours arranged like the rings produced by the reflexion of thin plates. Moreover, the dark intervals, and their succession, as well as the succession of the fringes, correspond exactly in both cases. As the thinnest plate makes the broadest ring, so the largest fringe is that which

which is formed by light passing nearest the body, and the largest of the dark intervals is the one nearest the largest fringe. It only remains to remark, that the two cases resemble each other in the circumstance of number. It was long imagined that the fringes by flexion were only threefold, because three only are discoverable by the naked eye. This appearance thus got the name of the '*three fringes*' from the time of Grimaldi, the first observer of it. But it is now well known that they are as numerous as the fringes or rings of thin plates; that, by simple experiments with the prism, they may be seen extending one after another to a great distance, with their dark intervals; and that they always decrease as the distance from the bending body increases.* This one observation only seems to have been wanting, to make Sir Isaac Newton admit the following positions. He uniformly calls the colours by flexion 'the three fringes' in the *Optics*; and the '*tres fimbriae*' in the '*Principia*.'

When the rays of light fall on the inferior surface of the lens or other convex glass which forms the thin plate, they come within the sphere of action of the superior surface of the other glass or body which forms the plate. That body must, therefore, exert upon the rays at such small distances, the same force which it would exert upon the rays were they to pass by it at equal distances. If the rays passed at a certain distance, we have seen that they would be deflected; if at another distance, inflected; and so on in succession alternatively: or, which is the same thing, at one set of distances they would be repelled, at another set of distances they would be attracted by the bending body. But it can make no difference either on the power of the body to attract and repel, or upon the capacity of the rays to be acted upon, whether the line of their direction passes by the body without touching it, or falls upon the body, and, if produced, passes through it. The same power of flexion must equally be exerted in both cases, and produce the same effects. When, therefore, the light falls on the inferior surface of the upper glass, and is about to emerge, it is either attracted or repelled by the other glass, which exerts a force in lines perpendicular to its surface. If the light is incident at certain parts of the upper glass, that is, at certain distances from the inferior glass, it will be repelled; if at certain other parts or distances, it will be attracted. In either case, it will be formed into fringes or rings of different colours, if the incident beam was heterogeneous,

* Phil. Transf. 1797, Part II. Prof. Venturi, who frequently quotes Mr Brougham's paper in Phil. Transf. 1796, Part I. does not appear to have seen his second paper,

heterogeneous, and of the same colour if it was homogeneous. To the spaces where the light was repelled, or deflected and reflected, will correspond, below the glasses, dark intervals; to the spaces where the light was attracted, or inflected and transmitted, will correspond dark intervals above the glasses, and rings below. The thickness of the plate of air between the glasses, or of the plate of water in the case of the soap bubble, is only another expression for the distance of the bending body from the rays on which it acts. At alternate distances its action is opposite; and as the distances increase, that action, whether attractive or repulsive, diminishes. At alternate thicknesses of the plates, the distances of the rays from the bending body are alternate, and the action of the body consequently opposite; and as the thickness of the plate increases, the distance augments, and the action, of whatever kind, is weakened. It is now very generally admitted, * that the rays differ in flexibility, and that this quality disposes them in fringes, which, when accurately examined, are found to be spectra of the radiant body, dilated by flexion. It is also allowed † that they differ in another quality, viz. in their capacity of being acted upon by the bending body at the same distance; and that this quality disposes them in fringes or spectra of various sizes or degrees of dilatation. Hence all the phenomena of thin plates are easily resolvable into those of flexion, and the whole classified according to one simple and general law.

It is worth while here to remark, that if the action of bodies upon light regularly decreases as the distance increases, or inversely according to any power whatever of that distance; and if this action is at the same time alternate at different definite intervals of the distance, and if we attempt to exhibit this action by a curve, whose ordinates express the force, alternately attractive and repulsive, while its abscissæ represent the distances, we shall find one of those paradoxes which frequently occur in the higher geometry, and which seem like interruptions in the great law of continuity. The curve will not be regularly progressive and continuous; it will consist of separate portions, going on diminishing in convexity, but following each other *per saltum*, on the opposite sides of the axis; and this, whether the force diminishes as the square or cube, or whatever power of the distance. Such a result in the theory of curve lines always leads us to conclude, that we have found an arch or portion of a line possessed of properties that do not belong to the rest of it, (a circumstance, by the way, not remarked by writers on this subject.)

* Phil. Trans. 1756. pt. 1.

† Phil. Trans. 1797, pt. 2.

ject.) But it is not altogether so evident how we are to account for this interruption in the present case. Possibly the law of continuity is not broken, and our data are erroneous; that is, we ought not to assume that the force exerted by bodies on light decreases regularly as any power of the distance, but that, in successive intervals, this force becomes, on the whole, less and less, and alternately acts in opposite directions, but, during each particular space of action, it first increases and then diminishes. This is the only way in which it is possible to conceive the law of continuity preserved, and the action of bodies on light at the same time alternate. The force will then be expressed by a curve whose axis is perpendicular to the bending body, and which cuts the axis repeatedly, receding from it alternately on opposite sides, and always receding less and less as the axis increases, till it tends at last to unite with the axis itself. Such a curve has not yet, we believe, been considered: it is evidently not algebraical; it has an infinite number of arches constantly diminishing in convexity, but not necessarily decreasing in the length of their greatest diameters; and it approaches to its axis, not as to an asymptote, for it constantly crosses it, but in another way not hitherto described: it tends to coincide with the axis, and comes nearer to it than any assignable distance; yet, still, it cuts and crosses it again; so that its opposite arches are constantly approaching nearer and nearer the axis, without ever meeting it.

If any one should think that such inferences are proofs that the theory above sketched is defective, it may be proper for him to reflect, that the explanation of the colours of lenses and soap bubbles, by the theory of thin plates, is liable to similar objections. If we attempt to express that theory by a curve, whose abscissæ denotes the thickness of the plate, and whose ordinates denote the reflective and transmissive powers alternately, we have a curve of the same kind. It is scarce necessary to add, that, according to whatever power of the distance (or thickness) those actions (whether of flexion or of reflexion and transmission) decrease, the curves in question approach a line drawn at right angles to the axis as an asymptote; a conclusion supported by the theory, now universally received, which denies the existence of any perfect contact.

These considerations deserve at least to be discussed. We offer them as approximations to the knowledge of the general law. The proposition now enunciated is not unauthorized by the facts already established; and farther induction may confirm it as the legitimate mode of classifying all these curious and obscure phenomena. Our purpose will be served if they excite this investi-

gation.

gation, and ultimately add to the stock of solid information upon one of the most sublime and useful of human inquiries. We now resume our account of the work under review.

II. The object of our author's next investigation, was to discover the manner in which bodies decompose the heterogeneous light by their internal structure; and in order to acquire some knowledge of this operation, no method seemed more eligible than to examine the fact, and consider what changes bodies of different colours produce upon the light which they reflect and transmit.

The examination of colours seen by reflected light first suggested itself; but the quantity of rays irregularly reflected from the surfaces of all bodies without any decomposition, rendered all such experiments as were performed with lavigated colours unsatisfactory, however carefully the mixtures were made. He therefore resorted to transparent colours, as better adapted to his purpose. He formed his liquids of substances whose composition was minutely ascertained; and his apparatus appears to have been simple and well contrived. The object was to ascertain the degree in which coloured bodies decompose the white light of the sun. For this purpose, a rectangular box of pure crystal was filled with liquid, of the colour to be examined, and three different modes of trial were used. A small beam was sent through the box into a darkened chamber, while an equal and similar beam of white light, as seen through a prism, was compared with it; next, a lens was placed in a white beam, and a prism in the refracted rays (according to Sir I. Newton's method of effecting the greatest possible separation), and the coloured box was then interposed between the window and the lens; or, lastly, the apparatus remaining as before the box was interposed, our author examined the spectrum by looking through the box. The prisms used were of good flint glass. Five degrees of depth of colour were always used successively; the limits of those were, the greatest depth at which it was possible to perceive any transmission, and the smallest depth at which any of the rays were wanting. How the depths were varied, our author omits to mention. At one place it should seem that the space of coloured fluid traversed by the light was the measure; for he speaks of *eight inches* of liquor, through which the rays passed, as the *minimum* of transparency in that colour. In other parts, it appears that the composition of the liquor itself varied. The intermediate degrees, too, are not specified; not indeed would this be very easy. It is possible to divide the limits of opacity and transparency, but the intermediate spaces cannot be divided and proportioned. He talks of such divisions, however, in all his experiments, and notes the

the kind of rays transmitted at each. Possibly this may only be a mode of stating, that, by increasing the transparency, such a ray was added to the spectrum, and so on. But if the length of the passage which the rays made through the liquor had been assumed as the only test of its opacity or transparency, we apprehend all difficulty and incorrectness would have vanished; for, the sides of the glass box being graduated, and a sliding end adapted to it, the number of degrees on the scale would always have furnished the means of comparing the results. For want of some such contrivance, our author's experiments are defective. We do not learn from them how many inches of a certain solution give its pure colour, and how many transmit various other rays along with that colour. We only learn, that at five several unknown degrees of deepness, different infusions transmit different rays of light. The results of the experiments which lead to this one general conclusion, and no more, are detailed in a great number of tables. Various liquors, to the number of 53, were tried. The first was a solution of gold in nitromuriatic acid. This liquid transmitted first the red and orange rays; then the red, orange and yellow; and so on, till all but the violet passed freely. In like manner, the liquor called '*purpura cassii*' was exposed to trial. The blue rays were the first that passed through; different parts of the yellow, of the green, and of the violet, were the last. Sulphate of copper transmitted the green and blue first, the red last. Ammoniate of copper transmitted the violet first, the red last. Cochineal transmitted the red first, and the green last of all. Several different liquors afforded the very same results. Thus cartamus, amber, seandrin, white-wine, and several others, gave the same results as nitromuriate of gold. What may appear singular, infusion of violets transmitted the colour which we call violet, last of all. The Italian term, *pronnuzzo*, is therefore less exceptionable than ours for that tint.

This may serve as a specimen of inquiries, to the details of which we are far from attaching either much importance, or any very signal difficulty. As no measures of intensity are given, by which comparisons of the different processes may be instituted, and as our author uniformly made his experiment in one way, viz. diminishing the deepness of his tints, till all the rays passed freely, no conclusion can be drawn, unless that differently coloured liquors transmit the rays with various degrees of facility. That red liquors should transmit the red-making rays first, is not surprising. To announce this fact, is only to say that those liquors are red. The same remark applies to all the other colours, as far as the beginnings of the scales are concerned. To show what rays are with most difficulty passed through, is of
somewhat

somewhat more consequence, and this we learn fully from these experiments. As each trial is uniformly continued until all the intermediate rays have passed, no measure or proportion is given; we can only collect from the remaining parts of this chapter, that certain intermediate rays pass sooner than others, in each body.

We cannot help wishing that our author had particularised the results of his experiments in one respect. When, for example, he viewed the spectrum made by light, which passed through a red solution, and saw no green in it (as was the case in the lightest solution of cochineal, *expt. XV.*), we should wish to know what colour occupied the middle part of the spectrum. Indeed, we are left to guess what was the form and appearance of the prismatic spectrum in all these experiments. We are told that one solution passed all but yellow, another all but blue. The experiments were made with rays passing through the liquor, and then through the prism: We should wish to know what kind of oblong spectra were exhibited in the two cases now cited, when this form of trial was applied to them. Moreover, we are told that a mixed colour was separated: We should wish to know whether such a colour was mixed only by using particular infusions in the crystal box, or whether colours were compounded by other means, and separated by the agency of the infusion. The experiment of refracting the rays after they passed through the box was tried, to discover the effects of the liquor; but we wish the author had also passed through the box beams formed by the prism and lens, according to Sir Isaac Newton's method. Another remark, is the obvious result of comparing these experiments in general, with the unwillingness of the author to use colours by reflexion. It is plain that he only passed different rays through his liquors, in consequence of that very imperfection which he ascribes to the lavigated opaque colours. If these are deprived of polish, they will reflect much less extraneous light than the transparent liquors transmit. Our author, by telling us that one kind of liquid sent through green as well as red rays, only says, that his coloured solution had a certain imperfection, for that it was not purely red or purely green. He proceeds no farther; he does not push the inquiry to any general inferences: and while we admit the neatness of the apparatus, which would have been complete had it possessed the one addition suggested above, we regret that so trifling a profit was gained from it, and so little pains taken to render its merits useful. 'Non respondere favorem speratum meritis.'

In a subsequent part of the work (*chapter IV.*), our author draws several inferences from the preceding course of experiments. We have

have mentioned the general one, which alone they seem to warrant. But it leads to particular propositions, some of which are of much importance; and the whole reasoning of the writer, in this part, is above all praise, for its ingenuity and elegance. The following are the chief heads of his remarks. We introduce them here, because they evidently relate to this second branch of the subject, though he has thought proper to place them differently.

The experiments with coloured liquids, give us an easy method of separating the rays of any one kind from all the rest. Thus the seven primary rays are separated as follows: The red, by a solution of cochineal; the orange, by sympathetic ink, made with cobalt; the yellow by sulphate of copper, the green, by ammoniate of copper, of one degree of strength; the blue, by the same solution stronger; the indigo, by a still stronger solution, of the same; and the violet by a solution stronger still. He shows that the coloured liquors and variously prepared glasses serve the same ends.

Let us, however, consider how this object is really effected by such means. How do we know that red rays are obtained pure by the cochineal infusion, for example? Because, by again refracting the transmitted beam with a prism, we obtain no other colour in the spectrum. But if a prism and a screen had been used instead of the cochineal solution, would not the very same result have been obtained? This at least is the very *experimentum crucis* of Sir Isaac Newton's theory. What then is gained by the clumsy method of the solution—a method so uncertain that no two experimentalists can be sure of using the same body until they have made their experiment? And what is the consequence of this variation of the process? We obtain red rays, that is, rays inseparable by a prism. But can any one be sure that they are the pure light of the red part of the spectrum? on the contrary, is it not clearly an impossibility so to compose our liquor as to obtain one pure red ray? The prismatic spectrum obtained from this kind of red beam will indeed have only red rays; and if the liquor is diluted so as to transmit other sorts of rays, the spectrum may consist of red together with these. But it is in vain to think that this spectrum is pure, merely because it has different colours, and because in the lower part, it looks reddish, and in the higher green or blue. We think, then, that our author has here overstated the importance of his inference from these experiments; that he has afforded but a poor substitute for the Newtonian method of decomposing heterogeneous light; and that some portion of evident error mingles itself with this part of his deductions.

Some reasoners, soon after the doctrines of Newton were fully established, began to maintain, in opposition to them, that the primary colours should be reckoned only three; others said five; since, they alleged, the green is a compound of blue and yellow; the orange of yellow and red; and so on. It was all the while evident, that those persons had not read Sir Isaac Newton's own account of the composition of beams, by means of the lens and prism; for he shews, in that wonderful part of his discoveries, that any one colour in the spectrum may be compounded of the two neighbouring colours, but that the compounded beam is always separable by reversing the experiment; whereas no change of the experiment, which gives the simple beam of that colour from the sun's rays, can effect its decomposition. Thus, it was clear, that a green may be made of yellow and blue; but this green is again separated by refraction into yellow and blue; whereas the green of the spectrum is by no means whatever separable; and then blue may be composed, in like manner, of green and indigo, or yellow of green and orange. The same fancies have nevertheless been often taken up since, by superficial reasoners, and, if we mistake not, have been paraded by Dr Darwin, among others, in the poetical notes of his didactic effusions. Professor Venturi gives us a new proof of the absurdity of such tales. He produces a green beam from the operation of his crystal of coloured liquor; and no subsequent transmission is able to change in the slightest degree the nature of this colour.

Euler and others have maintained that the eye is an achromatic glass as it were, curiously composed in such a manner as to counteract the different refrangibility of the rays. Indeed, this is the generally received opinion; and we owe to Professor Venturi the first clear demonstration of its falsehood. The fact, that the eye is achromatic, cannot be doubted: we have the constant evidence of our sense for it: indeed, were it not so, we should never have acquired the knowledge of white. But he shews that this does not depend on the principles which regulate combinations of glasses; and his experiment is singularly beautiful and conclusive. The crystal filled with tincture of turnsol, or of Campechy wood (logwood), gives, at a certain depth of colour, both red and violet rays. Let a longsighted person look through this infusion at the white hole illuminated by the sun's light, or that of the clouds, that hole appears red to him. Let a shortsighted person look in the same manner, he sees the hole of a violet colour. Now, if a common lens is interposed between the compound beam and a chart, the focus of the red rays is farthest from the lens, the focus of the violet

rays nearest to it; but if an achromatic lens is used, the rays have one and the same focus. Here is a truly beautiful demonstration; combining reasoning with fancy; and proving both the truth of the proposition, and the tasteful skill of the author, in a manner equally irrefragable. We may add, that this inference was not presented to this most ingenious person now for the first time: he had proved the same thing formerly to himself, from other principles.

But a still more important consequence is drawn from the above mentioned experiments. Our author concludes that there is a species of colour, or rather a mode of producing permanent colour, altogether independent of refraction, and owing merely to transmission. This is inferred from the general fact, formerly stated, that solutions of substances in liquids first transmit one kind of rays, then another, and then another, according to their intensity; and that the succession varies in various kinds of solutions. From this consideration he explains the effects ascribed to the thickness or thinness of different tinctures. Thus it was observed by Westring, that the common solutions of lichen give almost every different tint, according to their strength and consistency. In this part of his inquiry, Professor Venturi presents us with another refutation of the attacks made on Sir Isaac Newton's doctrines by ignorant persons, and too generally effectual with the multitude of superficial reasoners, from the boldness of their authors. It has been found by many, that when they tried to mix the simple colours as prescribed in one of Sir Isaac Newton's methods, their process failed. Thus, they obtained black instead of white; by a union of seven primarily coloured substances. Our author shews that this was the necessary consequence of placing one substance behind another, instead of mixing them all equally together, in a mosaic work as it were. He explains several other appearances with equal felicity, and shews that the phenomena of solutions of *signum nephriticum*, so often alluded to by Newton, and of combination of liquors in different glasses, observed by Hook and others, are only particular cases of his general experiments.

The reasonings contained in the fourth chapter of this work, seem to have suggested those extensions of his experiments which our author details in the third. We now proceed to notice the heads of this part of his speculations.

III. He begins, by remarking, that those reasoners are mistaken, who imagine the phenomena of permanent colour in bodies can all be reduced to one class, and accounted for by the operation of refraction alone. This he thinks contrary to the established laws of optical science; and he enumerates four different general causes of separation of the colorific rays of heterogeneous

rogeous light, all of which take place in fact, and each of which is independent of the rest. These he first describes with references to their discoverers, and then deduces consequences from them. We shall extract the summary of this branch of science with which he concludes, as a fair specimen of his style, and as containing as brief an account of the subject as can be given. We shall then subjoin a notice of the chief consequences which he deduces from it in the course of his explication and arguments.

Formano essi adunque un genere di fenomeni a parte (i.e. i colori da noi stabiliti) il quale sta egregiamente per quarto nell'ordine, e intatto si rimane distinto e separato dai tre precedenti, in quanto che; i colori del prisma vengon fuori per *transmissione* e *refrazione* insieme senza aver uopo di riflessione; quelli prodotti dal principio di Brougham nascono per *riflessione*, senz'aver uopo di *refrazione*; i colori di Newton sono un effetto combinato di *riflessione* e di *transmissione* senza aver uopo di *refrazione*; e il quarto genere di colori da noi stabilito ora si divanno prodotti per semplice *transmissione* senz'aver uopo di riflessione o di *refrazione*.

Non è strano che i corpi si colorino per semplice trasmissione. Noi veggiamo che i corpi neri hanno la facoltà di annientare e distruggere tutta la luce che ricevono nel loro interno. Ma non è forse in Natura nessun corpo totalmente opaco, ed i corpi neri eziandio finché non sieno ingrossati a un certo segno: lasciano tuttavia passar oltre una porzione di luce. Il corpo nero adunque non distrugge tutta in un tratto, la luce che viene a percolarlo, ma la consuma, dirò così per gradi, mentre essa penetra gli strati successivi, ivi che si può concepire divisa la corticella esterior di quel corpo.—Or ciò che il corpo nero effettua spiegando in breve tratto un'azione forte su tutta quanta la luce, i corpi colorati per trasparenza lo effettuano riguardo solo ad alcune parti di essa luce; *suffocano quelli ed distinguono certe determinate specie di raggi, più presto e più facilmente dell'altre.* Dico più presto e più facilmente; perchè al finire del conto, siccome tutti in natura o per poco non tutti i corpi ottigati quanto occorre divengono trasparenti, così pur tutti o per poco non tutti ingrossati, quanto occorre diventano opachi.

Codesto annientamento d'alcune sorte di raggi nell'intorno de' corpi a preferenza dell'altre deve per necessità ammetterli anche della più parte di quelli, che si colorano alla maniera di Newton.* Un grande rotondo mazzaccio di vetro, pieno d'infusione assai carica di legno nêritico non presenta più alla vista se non i colori della sua riflessione; dove son iti quelli di trasmissione? Essi han penetrato il liquore, lo han penetrato per linea retta, ma non ne escono da veruna banda, perchè nell'trapassarne a molta profondità sono andati piancando l'un dopo l'altro a poco a poco, fino a svanire e perdersi interamente. Lo stesso veduto intervenire all'oro, e forse interviene al rame, ed a chi sa quanti altri.' p. 65—7.

From

* Optic. lib. I. part II. ad prop. 19.

From the second species of colour, that produced by simple reflexion, our author deduces various consequences. Three of these are quoted from the English writer; and the fourth he gives, without mentioning by whom it was discovered. If, he says, a plate of glass be exposed to the vapours, of boiling mercury, and then held between the eye and a luminous body, a clear halo or coloured circle is seen, in consequence of the reflexion of the light from the grains of the condense mercury. This cannot, he adds, be owing to inflexion; for the angle which the halo subtends is of six, ten, and sometimes more degrees; whereas the angle subtended by rings formed by flexion is never of more than six minutes. He explains from this experiment (which to us seems to require confirmation and variation before it justifies the preceding inference) the theory of lunar and solar halos; and thinks that the property of light, on which the explanation rests, forms a great addition to the theory of those who deny that the transmissiion of light takes place in those phenomena. We cannot imagine why our author, who thus readily admits reflexibility as a cause of colour, should have overlooked flexibility, a property whose influence is very extensive, both on the surfaces and in the internal structure of bodies. He admits that colour is produced from this property, in the first part of his work, and even hints that we may trace some connexion between the phenomena presented by its operation, and those observable in the experiments of thin plates.

But the most valuable portion of this chapter is the inquiry into the manner in which bodies transmit light, and the circumstances that attend this operation. In order to observe these, our author filled five vessels with equal parts of a green solution of trefoil in alcohol, and exposed each in the same situation, but with the five following variations: One was covered by a black cloth from all access of light; another was covered by a sheet of white paper; a third was exposed only to the light which passed through the apparatus of glass, formerly described, containing a solution of the same liquor as was in the five vessels, but renewed constantly, lest the light might change its colour; a fourth was exposed to light coming through a yellow solution of saffron; and a fifth to the light transmitted by a red solution of cochineal and alum. The colour of the green liquor, covered up by a black cloth, altered not in ten hours; that of the liquor covered with white paper was almost destroyed; that of the liquor exposed to green rays was a very little changed; that of the liquor in yellow rays was more; and, in the red rays, it was still more altered. Our author infers from hence, that those rays only discolour a body, which do not pass through it, but are absorbed and act upon the colouring matter of the substance. He repeated the same

experiment with cloths dyed in the infusions of the same colour, and obtained a like result.

Two laws, therefore, appear to bear a close analogy to each other. The one is only produced by the absorption, not by the reflexion or transmission of light; and colour is affected only by the rays which are stopped in the body exposed to their influence. To say that coloured bodies detain or stifle (as some have called it) the rays which enter them, by various reflexions and refractions within their substance, is absurd. Refraction and reflexion can only (our author says) divert rays from their course. Absorption is something different, and implies a total detention of the incident light. That black bodies absorb and detain, or destroy light in this manner, has long been allowed. He maintains, that coloured bodies do the same in a different degree. This destruction, he shows, to be quite different from refraction: the one of these penetrates takes place in a thousand cases without the other.

It cannot be denied, that such an account of the phenomena is much more simple and consistent with various analogies, than the one which it is intended to displace. If light is a material substance, differing from other bodies only in the vast rapidity of its motion before incidence, it is reasonable to think that, like other substances, it should be capable of entering into various unions, according to the laws of chemical affinity and corpuscular attraction; and that, when it no longer can be, in whole or in part, perceived beyond the limits of the body where it first fell, it should be allowed to be retained in the body's substance. Yet there are some difficulties attending this solution also; and some advantages belong to Professor Venturi's adversaries, which that ingenious and acute reasoner has overlooked in the ardour of his systematizing spirit. For example, the obvious difficulty is entirely kept out of view, viz. the impossibility of conceiving that all the light which falls is absorbed and retained; and the necessity under which we are thus placed, of admitting that much of it is conveyed ~~very~~ unperceived. If so, why may not the rest go off by the same means? The adversaries of Professor Venturi, too, are by no law of optics obliged to maintain, that the light is absorbed or destroyed by repeated reflexions and refractions within the substance of the body. They only affirm, that it is detained by those operations, and sent off gradually; that it is separated into a thousand parts, and sent off insensibly in various directions. This they may still maintain, notwithstanding our author's ingenious experiments and reasonings. For the rest, though we willingly acknowledge the elegance of the above experiment, and admit that it confirms former deductions from different operations, we do not apprehend that there is great originality in the conclusion

sion which our author draws from it, viz. that those rays only discolour a body which are absorbed by it. It would be difficult, upon the principle of absorption, to suppose that the rays which pass freely, alter the internal structure of the body. Analogously, however, between the experiment thus executed, and the famous one of Franklin with the coloured cloths exposed to the sun's light, is very striking. We would only remark, that the circumstance of quantity or intensity, as influenced by nature or quantity of light, is not at all considered in either of those cases. When our author exposed his liquor to white and yellow and green rays, he could not say, but on hand, that the white was less strong than the other two; and if it had been much less strong, it would have discoloured the liquor less, according to his own principle. In like manner, it is not known whether the yellow or green ray were equally dense, that is, whether the substances in the crystal box were equally transparent or permeable by rays of their own colour. The yellow discoloured the infusion more than the green. But is it clear, that there were as many green rays as yellow upon a given space of infusion in the respective vessels? Our author's whole reasoning proceeds on an assumption, which, had he stated it to himself, instead of making it tacitly, must have struck him as perfectly gratuitous, viz. that every body transparent, in equal quantities, the rays which it transmits most copiously. He says that, to the use, the three holes illuminated by red, yellow and green rays, appeared to transmit equal quantities of light. We deny that the sense could judge of such a thing. The difference between red and yellow, and still more the difference between red and green, is so very great, as to its impression on the sense, that no human eyes can abstract from its effects, and calculate the density of beams composed of such various materials, independent of their opposite qualities. Thus, too, more light may have been transmitted by the white paper than by any of the other covers of the vessels; and this may have been the cause of its discolouring the liquor most of all. It is impossible, in making such experiments, to guard against this source of error. As often as we would compare the qualities of the different rays, by preserving them in their artificial decomposition, after passing through coloured substances, we find ourselves left at a loss to reason from the results of our experiments, both by the different transparency of the different coloured substances employed; and by this additional circumstance, that we are all the while operating upon an artificial compound, an impure kind of light, whose composition we cannot well know. If we wish to examine the effects of different kinds

of rays on substances—for instance, to compare either their various powers of heating, or of separating oxygen, or of discharging colour, or (which equally merits notice) of affecting odour and taste, we must evidently operate upon the genuine kinds of simple homogeneous rays contained in the sun's light decomposed by the prism. This is the only fair, unequivocal mode of making experiments on different sorts of homogeneous light; and so excellent an optician as Professor Venturi, must have at once resorted to it, had he not entertained an unfortunate, but not unnatural, predilection for the form of process which he had himself invented, and whose merits, in other cases, we do not at all deny.

But whatever may be our opinion as to the eligibility of this method of inquiry, we can entertain no doubt of the ingenuity with which it is made subservient to the author's deductions, and still less can we withhold our applause from the singular modesty of the style in which he concludes this branch of his researches.

‘It is perhaps reserved (says he) for the industry of the age which is now opening, to determine with certainty the true reason of the detection of light in those coloured bodies which owe their tints to the transmission of light alone. We must rest contented with having barely proved the fact; happy if we have only succeeded in separating from each other, the four great operations by which colour is produced, so that the students of this science may not hereafter be induced to push farther than experience justifies, those laws, whose existence experience has disclosed.’ p. 74.

IV. We now come to the last part of this valuable work, and it is inferior to none of the others, either in the ingenious originality of its combinations of facts (our author's characteristic quality), or in the clear and lucid manner of its detail. The subject is the colours known by the names of accidental colours, imaginary colours, and ocular spectra. These appearances have formerly excited much attention. Professor Venturi discussed their nature in a paper which gained the prize in the Society of Modena; and he now gives the outlines of the doctrines then advanced, with the confirmations added by his subsequent experiments. If he has given no new information relative to the causes of that phenomenon, we must admit, that he has at least added much to our knowledge of its circumstances, and has, by reasoning upon those circumstances, brought to light several interesting particulars regarding the law of their combinations. We present our readers with the propositions, in which his theory is condensed.

1 The imaginary colour left in the retina, is always the same.

from the same real colour, whether that real colour be simple or mixed.

2. The imaginary colours are produced in the retina in utter darkness, after it has been impressed with the real colours; and the real colours produce the imaginary ones in the following order: Red produces a tint between green and blue; orange an indigo; a colour between green and yellow gives a violet; a colour between green and blue gives a red; indigo gives an orange; and violet gives a tint between green and yellow. Thus, we see that the imaginary and real colours are always opposite to each other; and that if any imaginary colour B is produced by any real colour A, then the real colour B produces the imaginary colour A.

3. The nature of the sentient fibre of the eye is such, that, when once excited, it continues of itself certain conceived motions or sensations, only changing and modifying them according to peculiar and regular laws.

4. The union or succession of different colours is agreeable and harmonious, provided the combined or consecutive colours are so related to each other, that the one is the imaginary colour produced by the other, when real. Thus, red and green are often observed to produce, when mixed, or following each other, an agreeable effect. Leonardo da Vinci promised to represent, in a general enumeration, the colours which harmonize in a picture. Unfortunately, he has not executed the plan. But others have given detached remarks on this subject. Thus, Newton observes, that orange and indigo agree well together. And Virgil (an authority of a very different description) says, '*Mollia luteola pingit vaccinia caltha.*' Now, it may be observed, that orange is the imaginary colour produced by a real indigo, and conversely. Raphael Mengs, too, says that yellow and violet harmonize admirably together. Now, the tint of violet corresponds to a tint between green and yellow. The same painter adds, that red, yellow, and blue do not harmonize together; but that each of these harmonizes with the intermediate colour of the other two; by which he means, that red harmonizes with green, yellow with violet, and blue with orange. A similar conclusion, very nearly, might have been drawn, *a priori*, from the above proposition, by inspecting the list of relations formerly given (prop. 2.), between the real and imaginary colours. Farther, it has been found in the theory of music, that a sound leaves in the ear the sensation of its twelfth, or the octave of its fifth; and from thence are derived the less perfect concords. Now, it is very remarkable, that if we divide the spectrum of simple colours according to the Newtonian rule, the

tints

tints which harmonize according to the proposition under consideration, are exactly fifths to each other. Thus, it may be inferred, that the rules of harmony in sounds and in colours are exactly similar; and we trace, in this manner, a beautiful analogy between the senses of hearing and sight—an analogy which future discoveries may perhaps extend to the senses of smell and taste. Our author, however, adds an ingenious speculation, of a more general nature, upon the *harmony of ideas*. He observes, that universal experience in oratory, painting, architecture, poetry, as well as in the logic of scientific classifications, proves two distinct points, *first*, that the union of similar objects gives a certain pleasure to the mind, viz. the pleasure derived from order, regularity, uniformity; *secondly*, that a certain pleasure is also derived from the apposition of extremes, viz. the pleasure of contrast. Hence, he infers that a law regulates all our mental pleasures in this particular, similar to the special law of caloric harmony above demonstrated, viz. 'that those ideas or sensations are harmonious together, which, by the constitution of our minds, are mutually exchangeable.'

5. If a real colour is impressed on the retina more strong than one formerly impressed, not one, but several different imaginary colours succeed it. This curious proposition our author demonstrates by very decisive experiments; and he shews that it is true of all successions of the prismatic colours.

6. The sensations of different colours depend, not on different orders of fibres in the sensorium, but on different movements of the same fibres. Such language is much more theoretical, than the idea contained in the assertion. Our readers will easily perceive, that, without specifying the place or manner of sensation, and without any reference to the sensorium, as our author calls it, a true proposition is couched in the above terms.

7. If the rays of any kind whatever strike the eye with sufficient force, a sensation of white is produced. This singular proposition, that the sensation of white depends not on the mixture, but on the intensity of the light which produces it, is proved in the following manner. If a spot of red light, separated in whatever way from the other rays, is looked at on a white paper, no colour but red is seen. But if those red rays fall on the eye, the image of the luminous body is white, except at its outer edges, which are tinged red. And our author attempts to shew, by some calculations on the intensity of beams, that this effect ought not to be produced, by concentrating the same red rays on a chart, by means of a lens, but only when they fall directly on the eye. We are inclined altogether to deny this proposition; to ascribe the

the event of the experiment to some deception produced in the eye, by the mixture perhaps of imaginary with real colours; and to maintain that if the mere increased intensity of the red rays produced the sensation of white, that colour should certainly appear on the chart, provided the red rays, separated by any means from a sufficiently large beam of light, were condensed by a lens, and the focus received on the chart. On the contrary, the more intense this focus of red rays is, the deeper is the red produced.

8. An imaginary and a real colour coinciding together mutually temper and mix with each other, exactly like two real colours. This proposition is proved by several very ingenious and original experiments.

We have now only to return our thanks to the author for the pleasure derived from the perusal of his very valuable work; to recommend it earnestly to the attention of our scientific readers; and to express our hopes, that his new vocation * will not interfere with the farther prosecution of studies far more dignified and delightful to a rational creature, than the intrigues of courts, or the vulgar turmoil of republican factions.

ART. III. *Poems from the Portuguese of Luis de Camoens, with Remarks on his Life and Writings. Notes, &c. &c.* By Lord Viscount Strangford. Printed for J. Carpenter, London, 1803.

THE minor poems of Camoens are held so low in the estimation of the Portuguese themselves, that it cannot be considered as matter of much surprise, that their merits should be but little known among foreigners. Vain of having produced the first, we may say the only epic poet that has adorned their peninsula, his countrymen are too apt to neglect his smaller compositions, and to undervalue that originality of sentiment, and that strong and genuine expression of feeling in which they abound, and which claim for their author (as strongly perhaps as the boasted Lusiad itself) the character of a poet. Such being our opinion with regard to these pieces, we were much gratified at learning that a young person, distinguished by his rank, and possessing a taste capable of discerning their neglected beauties, possessed at the same time sufficient industry to undertake to transplant these beauties into his native soil. Under the influence of these considerations, we

* Professor Venturi has lately been named ambassador from the Italian Republic to the Helvetic Body.

we had been led, somewhat unreasonably perhaps, to form expectations of Lord Strangford's performance, which have not been completely realized; for, however we may have been gratified in the perusal of this little volume, by the easy versification, and the lively, though too often licentious imagination which it exhibits, we must own that we have not, upon the whole, derived from it that satisfaction which we were at one time inclined to anticipate. What part of our disappointment is to be attributed to the extravagance of our own ideas, and what to the insufficiency of Lord Strangford's translation, will best appear from a short consideration of the work itself, and a comparison of it with its original.

The poems, indeed, we must observe, in the *first* place, cannot honestly be termed translations from Camoens. The office of a translator requires, *first*, that he should express, in general, faithfully the ideas of his author; and, *secondly*, that his manner of expressing them should approach, as nearly as the difference of the languages will permit, to the style of the work which he translates. We will not say that Lord Strangford has *failed* in both these points; he writes with too much facility to allow us to suppose that he could have been at a loss for language, had he made the attempt; but, that he has totally neglected them, no one who compares any one of these pieces with the original, will hesitate to admit. And though the diffidence with which his work is offered to the public, entitles it, in other respects, to considerable indulgence; the confident assertion contained in his prefatory remarks (p. 31.), that, 'for the most part, he has closely copied his author,' challenges, upon this ground at least, a severer examination, more especially as the affectation of apologizing now and then, by a note, for an insignificant deviation from his original, would seem to imply, that where such apologies are omitted, no deviation has been made. The fourth sonnet in Lord Strangford's translation will serve to illustrate this remark; and we shall transcribe the whole piece, not as being a very accurate translation, but because, such as it is, it is less disfigured by those prettinesses with which Lord Strangford has thought it necessary to embellish his original, and is therefore better calculated to give some idea of the style of the Portuguese poet.

Slowly and heavily the time has run

Which I have journey'd on this earthly stage;

For, scarcely entering on my prime of age,

Grief mark'd me for her own; ere yonder sun

Had the fifth lustrum of my days begun:

And since, compulsive, Fate and Fortune's rage

Have led my steps a long, long pilgrimage

In search of lost repose, but finding none!

For that fell star which o'er my cradle hung,

Forc'd

Forc'd me from dear ALEMQUER's rustic charms,
 To combat perils strange, and dire alarms,
 'Midst that rough main, whose angry waters roar
 Rude Abyssinia's cavern'd cliffs among,

—Far from green Portugal's parental shore!'

'To combat perils strange.' The original is not very graceful—'*Nle fez manjar de peixes;*' literally, 'had made me food for fishes.'

The noble translator's delicacy is shocked at the uncouth notion of a gentleman being made *food for fishes*; but if, in his 'severer studies,' he sometimes takes up his Homer, he will find that this barbarous idea is by no means new in poetry; and, surely, it is not more horrible than the idea of being preyed upon by vultures, dogs, or worms, all of whom, it cannot be disputed, are very classical performers. But it 'is not very graceful,' and Lord Strangford therefore quarrels with it; forgetting that, to be graceful, is not the only aim of poetry, and that he who sacrifices every thing to the Graces, though he may be reckoned a poet among triflers, must be contented to appear but a trifle among poets. However, though we could not admit the necessity of any alteration in the passage before us, we could not but approve that delicacy of conscience which forbade Lord Strangford to pass over in silence even so slight an innovation. In sonnet 5th, we find another instance of this appearance of extraordinary respect for the text of Camoens, where the line 'Scarce had the purpling east began to glow,' is followed by a note to announce the liberty which has been taken in translating *marichetada* (literally *inlaid*) by the word *purpling*: Perhaps *dappled* would have expressed accurately enough the original idea, and might have spared the apology. But who would have expected from a translator, who professes himself so scrupulously exact as to announce the variation of a single ornamental epithet, that he should not only interpolate whole passages, but that he should gravely comment upon his own interpolations? This, however, has been done by Lord Strangford in his note upon sonnet the 15th.

I sang of love—and in so sweet a strain,
 That hearts most hard were soften'd at the sound,
 And blushing girls, who gaily throng'd around,
 Felt their souls tingle with delightful pain—
 For quaintly did my chanted songs explain
 Those little secrets that in love abound—
 Life in a kiss, and death in absence found—
 Feign'd anger—slow consent—and coy disdain,
 And hardihood, at length with conquest crown'd.
 Yet did I not with these rude lips proclaim

From

From whom my song such sweet instructions drew,
 Too weak, alas ! to pour the praises due
 From youthful gratitude, to grace the name
 Of her, who kindly taught me all she knew !

The literal translation of this from Camoens is as follows :

' I will sing of love so sweetly, in terms so well concerted, that it shall make the breast, which feels nothing, feel two thousand amorous emotions. I will make love enliven all, by painting a thousand delicate secrets, mild anger, sighs of anguish, rash boldness, and absent pain. And I must content myself, lady, with telling the least part of your noble disdain, of your mild and severe look : But, for singing your air, your exalted and miraculous composition—there knowledge, genius, and art fail.'

Here we see that, in the original, there is no mention whatsoever of those *blushing girls with tingling hearts*, with whom we are presented by Lord Strangford ; and whilst, like another Timotheus,

' The mighty master smiles to see
 That love is in the next degree,'

he smartly observes in his note, that ' the aptitude of these young scholars brings to mind a celebrated passage in the confessions of St Austin, ' Si non amaveris, frigidæ loquor : Da amantem, da sentientem, da desiderantem—sciet quod loquor ! '

But Lord Strangford, throughout his whole translation, if he has not wilfully misrepresented, has entirely misconceived the character of Camoens, and this misconception leads him into continual errors. There is nothing in Camoens to make a girl blush ; his feelings were delicate, and he wrote as he felt. Whether it be owing to the general deterioration of morals, or whether it be that young persons commence authorship at an earlier age than heretofore, whilst their fancy is as yet unchastised by experience, it is a melancholy truth, that delicacy is almost excluded from the species of poetry now before us. The young author of the present day suffers his mind to wander without restraint or controul ; and the extravagant creations of a prurient imagination, tricked out in all the tinsel and frippery of the modern poet's effeminate vocabulary, are thoughtlessly put into the hands of youth, by those who would have been shocked at the far less seducing danger of a downright obscenity.

Lord Strangford's poems furnish us with too many proofs, that even the duty of a translator does not impose sufficient restriction to secure us from such disgusting intrusions, and to check this puerile itch for indelicacy : and the practice which he has frequently adopted, of writing a page or two upon what, in the original, is comprised in three or four lines, affords him free scope for indulging

ing this propensity. We will not produce more examples of this, than those which unavoidably present themselves in the quotations already made. It would, indeed, be difficult, to select any piece to which some addition has not been made in this taste by the translator; and though he has sometimes improved upon his original, he has likewise frequently corrupted the purity or simplicity of his composition, by his own inordinate passion for unseasonable embellishment.

The Canzon at p. 52. of Lord Strangford's volume, is *very graceful*: But it is not a translation; and though it may be thought an embellishment, it certainly is not an improvement upon Camoens. The reader shall judge for himself.

When day has smil'd a soft farewell,
And night-drops bathe each shutting *bell*,
And shadows sail along the green,
And birds are still, and winds serene,

I wander silently.

And while my lone step prints the dew,
Dear are the dreams that bless my view;

To Memory's eye the maid appears,
For whom have sprung my sweetest tears,
So oft, so tenderly.

I see her, as with graceful care
She binds her braids of sunny hair;
I feel her harp's melodious thrill
Strike to my heart—and thence be still,
Reecho'd faithfully.

I meet her mild and quiet eye,
Drink the warm spirit of her sigh,
See young love beating in her breast,
And wish to mine its pulses prest,

God knows how fervently!

Such are my hours of dear delight,
And morn but makes me wish for night,
And think how swift the minutes flew,
When last amongst the dropping dew,

I wandered silently.

The words of Camoens, in his 34th sonnet, are these—

When the sun overcast, is shewing to the world a tranquil and dubious light, I go along a delightful meadow, figuring to myself my enemy—Here have I seen her composing her tresses—Here with her face upon her hand, so beautiful!—Here talking cheerfully; there thoughtful—Now standing still; now walking—Here was she seated; there she beheld me, as she raised those eyes so indifferent—Here somewhat moved; there secure—Here she grew sorrowful; there she smiled. And, in short, in these weary thoughts I pass this vain life which lasts for ever.

We are aware that those who are, unacquainted with the original, except through the medium of our bald and unmusical translation, will not be enabled to do very ample justice to its merits. They will, however, perceive, that Camoens, when he walks abroad to meditate upon his mistress, does not pay much attention to the state of the weather; and, far from occupying himself with the flowers, the winds, and the birds, is so taken up with the object of his affections, that he appears not even to observe that he is getting his feet wet with the dew. He indeed says, that he has sometimes succeeded in making a momentary impression upon her feelings; but he is not so vain as to affirm that the lady is actually enamoured; nor does he think it necessary to inform us what would have been his own sensations in such circumstances.

The authors of amatory verses may be divided into two classes; those who write from the heart, and those who write from the imagination. Camoens was of the former description; and therefore it is, that though none ever suffered more severely, or felt more acutely than he did, we meet with so little in him that is either extravagant or unnatural, if we except that quaintness of expression, into which he was now and then misled by the general bad taste of the times in which he wrote. His translator appears to have feared a reproach from him in the words of St Austin, 'frigidæ loquor;' and therefore he has warmed him up with stimulating spices, and tricked him out in the meretricious ornaments of Mr Little's school, the enervated licentiousness of whose style is such as might be expected from the more cultivated members of Mr Fribble's Club—'There is a club of us, all young bachelors, the sweetest society in the world; and we meet three times a week at each other's lodgings, where we drink tea, hear the chat of the day, invent fashions for the ladies, make models of them, and cut out patterns in paper. There's ~~Lord~~ Whiffle, Jacky Wagtail, my Lord Trip, Billy Dimple, Sir Dilberry Diddle, and your humble —.'* Mr Fribble indeed is not to be compared as a poet with any of these gentlemen; but affectation deserves as little quarter as imbecility; and we really are not prepared to show any sort of indulgence for a protracted and artful depravation of considerable talents and accomplishments.

Nor can we confine this censure to the poetry of this new school; the same want of nature, of manly simplicity, and intellectual vigour, prevails throughout their prose compositions. In this part of Lord Strangford's publication, indeed, the misrepresentation of Camoens's character is more direct and more inexcusable.

* Fribble, in Mills in her teens.

excuseable than in the poetical pieces, where some allowance might be made for the difficulty of translating; and where the reader is left at least to draw his own inference from what is before him.

' Gallantry (says Lord Strangford) was the leading trait in the disposition of Camoens—His amours were various and successful—Woman was to him as a ministering angel; and for the little joy which he tasted in life, he was indebted to her. The magic of female charms forms his favourite theme; and while he paints the allurements of the sex with the glowing pencil of an enthusiast, he seems transported into that heaven which he describes. Nor did this passion ever desert him. Even in his last days, he feelingly regretted the raptures of youth, and lingered with delight on the remembrances of love.' *Prefatory Remarks*, p. 13.

And again, ' It is improbable that he remained long constant to the memory of a departed mistress, when living beauty was ready to supply her place. His was not a heart that could safely defy temptation, although the barbarous ingenuity of some commentators would make us believe, that all his amours were purely platonic, and that he was ignorant of the passion in every other respect. Happily for himself, the case was different; and his works record that he more than once indulged in the little wanderings of amatory frolic.' *Ibid.* p. 13.

All this may be very true; but we do not think that the question, whether Camoens was sensible to the same feelings and passions with the generality of mankind, is at present of great importance; still less do we think that the establishment of this important fact would entitle him to such profound admiration as his translator expresses when he triumphantly proclaims his discovery. But Lord Strangford informs us, that his book was the amusement of a young mind, (*Pref. Rem.* p. 31.); and time, it is to be hoped, will make some change in his opinions: If not, woe be to our fair countrywomen; for he already possesses, as he informs us, what he considers as the principal offensive weapons for carrying on his warfare—locks of auburn, and eyes of blue; and he ventures to hope, upon the strength of those indications, that he is of an amorous disposition. Our readers may doubt the fairness of this representation; and we therefore present them with the memorable words of the original.

' *Thou hast an eye, &c.* Notwithstanding all that has been said, and all that has been written, to disprove the existence of a real and positive standard of beauty, were we to argue from the universality of poetical taste in every age, we should place the essence of female loveliness in the description before us. *Locks of auburn and eyes of blue* have ever been dear to the sons of song. The translator almost ventures to doubt, whether these two ideas do not enter into every combination of charms created by the poetical mind. The former are almost constantly ac-

accompanied by the advantages of complexion, and by that young freshness which defies the imitation of art. Sterne even considers them as indicative of moral qualities the most amiable, and asserts that they denote exuberance in all the warmer, and consequently in all, the better feelings of the human heart. *The translator does not wish to deem this opinion as wholly unfounded. He is, however, aware of the danger to which such a confession exposes him; but he flies for protection to the temple of AUREA VENUS.* Note to p. 56.

There we shall leave him, nor presume to violate with unhal- lowed looks the asylum of the goddess: but, whilst we earnestly hope that he may there meet with some prophetic priestess who will kindly satisfy his doubts, and relieve his anxiety as to his fu- ture destiny, we must inform our readers that the canzon, as well as the note in question, appear to have been written for the ex- press purpose of conveying to the world the very interesting parti- culars which they contain with regard to the noble author; there not being to be found in the original, from which it professes to be drawn, any mention whatever of blue eyes, auburn hair, young freshness, amorous disposition, or any other of those advantages which the noble writer either possesses, or thinks he has the pro- spect of possessing, over the rest of the world.

It is almost unnecessary to add, that the work is neatly printed upon wire-wove paper, and hot-pressed. A portrait of Camoens is prefixed to it, in which we suspect that his person (which was in reality disfigured by the loss of an eye in an expedition to the coast of Africa) has been as fancifully embellished by the graver of the artist, as his writings have been by the pen of Lord Strang- ford.

ART. IV. *Nuova Soluzione d'un Problema Statico Euleriano.* Di Gregorio Fontana.

From Memorie di Matematica e Fisica della Societa Ita- liana di Scienze. 1802. pp. 626.

THE problem discussed in this paper, was suggested to the cele- brated mathematician whose name is affixed to it, by a pas- sage in Euler's memoir upon the law of equilibrium, pointed out by Maupertuis, about the middle of the last century. We shall preface our account of Signor Fontana's speculations by a few re- marks upon the history of that law.

It was maintained by Maupertuis, that, in preserving the re- pose of the universe, and in performing its various motions, na- ture

ture uniformly employs those means which require the smallest expence of force. A body falls to the ground in the vertical line; and this is the shortest route which it can take to arrive at the surface of the earth. Light is reflected at an angle always equal to the angle of incidence. If the force of incidence is divided into two, one parallel and one perpendicular to the speculum, it is clear that the force of reflexion must be either greater or less than those two forces of incidence, unless the angle of reflexion is precisely equal to the angle of incidence. In the former case, more force would be required to reflect the light; in the latter, a portion of the force of incidence would be lost. Therefore Maupertuis contended, that the actual proportion of equality is the only one which neither creates any loss of the original force, nor requires any increase of it.

This theory was illustrated by various applications. Considerable ingenuity of demonstration and elegance of arrangement was mingled with a large portion of metaphysical reasoning, and a variety of subtleties formerly unknown in this department of science. No trifling portion of error was introduced by the undisciplined talents and presumptuous imagination of the inventor. The whole was paraded in a manner peculiarly obnoxious to men of real science, from its vanity and dogmatism. The author was elevated to the chair of the Berlin academy; an institution remarkable, at that time, for the violence of its aristocracy, and submissive, even in its opinions, to the pleasure of the court of Potsdam. He obtained, in this association, a kind of political support, not unmingled with persecution against those who ventured to attack his doctrines. The wit of Voltaire, and the more sober expositions of M^r Laurin, were repelled for a season by this most unscientific combination. But all was in the end ineffectual. And, as if to punish, by a signal fate, such an undue method of defence, the name of Maupertuis is now only known by his expedition to Lapland, in the company of those very French academicians who afterwards attacked his theory; while, of that theory, there does not remain a vestige in the science of Dynamics as at present established, although, unquestionably, it contained much valuable matter.

It will scarcely be credited that such should have been the premature end of a doctrine, to prove, illustrate, and extend which, all the talents of the first of analysts were exhausted. The illustrious Euler appears to have been, from the first, peculiarly captivated with the simplicity and elegance of Maupertuis's general law. In a single volume of the Berlin Memoirs, we meet with no less than three elaborate papers in its defence. Euler not only adopted the doctrine, but followed it through a thou-

and consequences, which were far above the reach of the inventor himself. He became its warmest eulogist, and undertook its defence against the French and German mathematicians, with all the keenness of controversy. The terms which he uses to describe its merits, are inferior to none of those which the universal consent of mankind have almost consecrated to the service of the Newtonian philosophy. Yet the very remains have vanished, '*etiam periere ruinae*,' of a system which was praised with the following encomiums by the disinterested zeal of the first mathematician of the age. We extract these eulogies with which Euler concludes two several papers on the subject, because the whole fact is extremely curious in the history of the science.

'There cannot remain any doubt that this great principle contains, as it were, the essence of all our knowledge in the science of statics. It must be regarded as the true principle of dynamics; as the most sacred law of nature. It is evidently the most happy and most important discovery that has ever been made in this science; unfolding to us at once the general law which all cases of equilibrium obey, and displaying the genuine plan of nature, to operate at all times with the least possible expence of force. (*Mem. de l'Acad. des Sciences et Belles Lettres de Berlin.* Tom. VI. p. 183.

In a reply to some attacks made upon the doctrine of the *minimum*, he concludes as follows:

'This principle is far superior to all former discoveries in dynamics. Its application embraces the whole range of that science,' &c. p. 217.

It is worth while to state more precisely the nature of a doctrine thus described by one who himself extended, by various discoveries, this very science, and to examine what peculiar merits he could discover in it.

He certainly has given a much more scientific explication and developement of it than can be found in the writings of the original author: and whatever value we may be disposed to allow the materials, the excellence of the fabric cannot be called in question.

The fundamental proposition of the doctrine is this: Let there be a system of bodies, of whatever number, masses, and position, attracted in any directions by forces acting as any conceivable powers of the distances from the centres of those forces. Call the masses of the bodies, M, m, μ , &c.; their distances from the centres of attraction, Z, z, ζ , &c. respectively; the forces of attraction, F, f, ϕ , &c.; and the powers of the distances to which those forces are proportional, N, n, ν , &c. Then, in order that an equilibrium may take place, and that the system may remain at rest, it is necessary that

$$MEZ^{N+1} + mfz^{n+1} + \mu\phi\zeta^{\nu+1} + \text{etc.} = 0$$

be either a *maximum* or a *minimum*; and therefore the fluxion of this quantity being put $= 0$, will give the condition essential to the equilibrium supposed.

There are therefore two kinds of equilibrium contemplated in this theory; the one when the above forces (denominated by Maupertuis the quantity of action) are a *maximum*, the other when they are a *minimum*. These two kinds of equilibrium Euler describes by the example of a cone. If it is required to place a cone at rest on a plane, two positions will equally satisfy the conditions; the cone may be placed on its base, or vertically on its apex. In the former case, the variation of its position to any side does not permanently derange the equilibrium; in the latter, the smallest movement is fatal to the rest of the body. In Euler's memoir, above quoted, we find various demonstrations and applications of this general principle. The author, in each of the particular cases, first proposes to find the conditions of equilibrium by this doctrine. He easily deduces the fluxional equation according to the method of *maxima* and *minima*. By exterminating from thence the fluxions of the variable quantities, he obtains a finite solution; and he shews that this is the same with the solution obtained by the ordinary process. Thus he finds, by the doctrine of Maupertuis, that two forces drawing a body can only keep it at rest when they act in the same line, and are equal and opposite; and that the lever can only be in equilibrio when its opposite weights are inversely as their distances from the fulcrum. He applies the doctrine in the very same manner to the general and very difficult case of curvilinear levers, as the catenarian curve, and velarian curve; investigates the law of the composition of forces, and of the different mechanical powers (which indeed are all distinctly resolvable into the case of the lever). He also deduces, from the same doctrine, the general proposition relative to the operations of machines, or combinations of the mechanical powers, and extends the whole to the principle of the spring. Nothing can be more elegant than the whole of these investigations. We are at every step delighted with the discovery of exact coincidence between the deductions from the theory and the known positions of dynamical science, deduced from principles diametrically opposite. We experience the same pleasure as when the doctrine of the fluxional calculus is proved to us by the coincidence of its results with those of common geometry, in all the cases which the latter can reach; and, at each step of the inquiry, we acknowledge the hand of a master, in the simplicity and rapidity of the touches by which the effect is produced.

After giving these illustrations of the principle, which are all cases of the *minimum* of force, Euler proceeds to consider one in

which the other species of equilibrium is exemplified. This is the problem which Signor Fontana has undertaken to investigate by common analysis, and upon the ordinary principles, in the paper now before us. Euler states that the solution, by such principles, would not be easy, and appears to draw from hence an inference in favour of the utility of Maupertuis's system. It is, however, extremely evident that he was in this respect mistaken; for the solution demands no very long or intricate investigation; and Signor Fontana has given a very elegant and simple investigation of it, both in the easier case, which Euler solved, and in the more general and abstruse conditions, which that great analyst did not take into consideration.

The problem which Euler says was proposed to him for solution, long before Maupertuis's theory occupied his thoughts, but which he seems rather unaccountably to have failed in solving until that theory attracted his notice, may be enunciated as follows: On a given fulcrum to place a given rod, loaded at one end by a given weight, so that the other end may remain at rest upon a vertical plane (or wall) given in position. Euler only considered the case when the rod was deprived of all weight, and when no friction interfered. In these circumstances, putting b = the distance of the fulcrum from the wall; a = the length of the rod; z = the force applied to its extremity; and x = the length of the part intercepted between the fulcrum and the wall, he easily deduced the equation.

$$z = \frac{a\sqrt{x^2 - b^2} - \sqrt{x^2 - b^2}}{x} \quad \text{But}$$

$$\dot{z} = \frac{a b^2 \dot{x}}{x^2 \sqrt{x^2 - b^2}} - \frac{x \dot{x}}{\sqrt{x^2 - b^2}} = \frac{\dot{x} (a b^2 - x^3)}{x^2 \sqrt{x^2 - b^2}}$$

And by the theory $\dot{z} = 0$. Therefore

$$x^3 = a b^2 \quad \text{or} \quad x = \sqrt[3]{a b^2}.$$

The solution was therefore reduced to finding a line whose cube was equal to a given parallelepiped; and the problem was thus resolved by Maupertuis's law. In fact, a very simple geometrical construction is obvious, and might be easily described by the intersection of a cubic parabola, whose parameter is equal to the length of the rod.

Signor Fontana, doubting the solidity of Maupertuis's law, investigates the problem by the arithmetic of sines. He easily obtains an equation, involving the same quantities as those in Euler's, together with the sine and cosine of the angle which the rod forms with the perpendicular from the fulcrum to the wall. From thence he exterminates the angular expression, just as Euler does.

does the fluxion; and there remains the very same result as that above stated.

But our author proceeds to the general case, in which the rod is heavy, and the wall exerts friction. Representing the weight of the rod by m times its length, and the friction by n times the pressure, f being that pressure, and the other quantities being expressed as above, and p being the weight attached to the end of the rod, we obtain the following general equation for all the cases of the problem:

$$\kappa^6 + 2 \frac{a b^2 (P + \frac{1}{2} m a) x^3}{P + m a} + n^2 a^2 b^2 \left(\frac{P + \frac{1}{2} m a}{P + m a} \right)^2 x^3 + (n^2 + 1) a^2 b^2 \left(\frac{P + \frac{1}{2} m a}{P + m a} \right)^2 = 0.$$

In this equation, m or n , separately or together, may vanish; that is, the weight of the rod, or the friction, may one or both be supposed nothing. When $m = 0$, and $n = 0$ also, we get the equation formerly deduced. When $m = 0$, or the rod has no weight, but the friction continues, we have a singular paradox; P vanishes entirely from the equation, and leaves a solution quite definite, but altogether independent of the pressure exerted on the rod. If n vanishes (or the friction ceases) while the rod continues heavy, we get $\kappa^3 = a b^2 \left(\frac{P + \frac{1}{2} m a}{P + m a} \right)$, in which, if P (or the weight) vanishes, m vanishes also; whence another paradox, that if there is no friction, and no weight attached to the extremity of the rod, the equilibrium is not at all affected by its own weight, but is the same, whatever that may be, or whether it exists at all or not. This problem is therefore completely solved, and solved much more easily and generally by ordinary rules, than by the principle of *minima* or *maxima* of forces; and Euler would evidently have seen the relations of the question in a more clear and extensive manner, had he not fettered himself by the theory which he was labouring to support.

We shall conclude with noticing a consequence deducible from the curvilinear or *local* construction of this problem. By an obvious process, we obtain an equation between y and known quantities of this form (y being a side of the right-angled triangle, whose hypotenuse is x , above investigated).

$y^6 + (3 a^2 - b) y^4 + 3 a^4 y^2 + a^6 = 0$, put $3 a^2 - b = P$, and $y^2 = Z$, and $a^2 = q$, the equation becomes $Z^3 + P Z^2 + 3 q^2 Z + q^3 = 0$; a very general cubic equation. Now, the relations between y and a and b may easily be found by the solutions of Euler's problem above given; for these reduce this question to the extraction of a cube root. Therefore, the cubic equation now

deduced may always be resolved by that simple process; or, in other words, we have a general method of solving any entire equation whose fourth term bears to the coefficient of its third term, the relation of the cube to three times the square of the same quantity.

ART. V. *The Triumph of Music: A Poem, in Six Cantos.*

By William Hayley, Esq. Chichester. 1804.

FORTUNE has her favourites in the republic of letters as well as in the aristocracy of wealth. Desert is sometimes left, we are afraid, to pine in obscurity, while mediocrity is occasionally promoted to a share of public notice and indulgence, which appears surprising, when its claims come to be fairly investigated. To the latter class, we conceive the author of the poem before us to belong. His indefatigable industry during a long life, his character as a polite scholar, and his intimacy with men of the first literary eminence, are circumstances quite independent of the diviner inspiration of genius; but, in Mr Hayley's case, they have so well supplied the deficiency, that his name carries to the general ear a sort of classical sound. The charm dissolves, however, upon a near examination, and leaves us to discover, in all the productions of his muse, a decided and invincible mediocrity. There is scarcely any passage, in all his metrical compositions, which may not be reduced, by a few slight transpositions, to sober sensible prose, without one distinguishable fragment of the scattered poet. Even in his earlier works, when the vigour of his fancy was unimpaired, there is a continual tameness of conception, and monotony of versification, that shew he was not born for the higher flights of poetry.

In one point of view, indeed, we think our author greatly superior to many who excel him in poetical talents; and that is, as the annotator of his own works. The copious notes subjoined to his didactic poems are quite of a different character from the silly farrago which so often disgraces the volumes of our modern poets. They display a liberal and cultivated mind, and contain a most amusing fund of literary information, gleaned from an extensive and well directed course of reading. To them he is indebted for the best part of his fame: they prop the weakness of the poetry that produced them, and shed a reflected lustre on what shone but feebly by its own light. When Mr Hayley refers us to a note, it is not an interruption, but a relief; and we gladly quit languid verse for agreeable prose. For these reasons, we

we were sorry to see the present poem come naked into the world, and regretted that the dignity of its epic nature should have been thought to preclude the assistance of that body-guard which had so well protected the feebleness of former productions. As it is, it must stand or fall by its poetical merit alone; and we fear it is not likely to add a single sprig to the scanty wreath that already encircles the poet's brow.

The preface informs us, that 'it was the purpose of the author not to display all the various efficacy of music, but to commemorate one very striking example of its moral influence.' This declaration, and indeed the very title of the poem, prepared us to expect, that however diversified it might be by episodes, the efficacy of music should be the connecting principle throughout, and direct the winding up of the story. The example he alludes to, which he met with in the memoirs of some Italian musician, is nothing more than the circumstance of two hired assassins being turned from their purpose, by overhearing the music of their intended victim and his mistress. But we shall give it in the words of the author, as a fair specimen of the style and execution of the poem; for it is natural he should put forth all his powers on that which he regards as the most important part of the story: He is speaking of Lucilio and Vennisia, the hero and heroine.

'It chanced one morn, a morn of awful note!
To sacred music they their souls devote.
With long delight, and zeal till then unknown,
Lucilio sung, in faith's sublimest tone,
The hymn that spoke his confidence in God.
And now the pavement near the door they trode;
But ere the quick Vennisia reached the key,
She hears a step—she start—she turns—and *see!*
In the lock'd chapel a strange figure stands;
She darts upon it with extended hands.
" 'Tis an assassin!" (she exclaims aghast)
" Fly, fly Lucilio, while I bind him fast!
Fly, ere his dark accomplices appear!"
With love superior to all selfish fear,
That made her tender arms an iron clasp,
She held the speechless Lucio in her grasp.
Suddenly prostrate at Lucilio's foot,
The trembling Basil, for a moment mute,
Kneelt, in the tears of penitence, and said,
Shaking with strong compunction, not with dread,
" We were assassins, but abjure the guilt;
Let tears atone for blood in purpose spilt!
Most true: our night in that dire purpose past;
We fix this fatal morn Lucilio's last.

But mark ! how Heaven defeats the subtlest plan,

By the blest talent of this godlike man !

His harmony, inspired by angels, wrought

Conversion in our souls surpassing thought,' &c. p. 40.

But this, so far from being the hinging point of the story, is narrated as a little subordinate incident in the second canto, and tends in no respect to advance the plot.

Music having so soon achieved its grand conquest, is obliged to content itself, during the remainder of the poem, with the inglorious task of filling up a vacant hour. Whenever the lover and his lady have nothing better to do, they sit down to the organ or piano-forte, and sing and play (Mr Hayley assures us most enchantingly) to words of their own composition. Here is no triumph of music, except over the *ennui* of idleness; and, to have made even that victory in any degree probable, the charms of the music, we conceive, must have far exceeded those of the poetry. If any of our readers be curious to know the real story of this metrical narrative, he will probably be satisfied with the outline that follows.

Venusia, the heroine, is brought up by Donado, an old Venetian nobleman, as his own, but is in fact the daughter of Manfredi, who, having been the unfortunate cause of the death of an only son, had resolved to seclude himself from the world, and devote his life to atone for his involuntary crime. In prosecution of this plan, he sends his infant daughter to a distant nurse, who happened at the same time to have under her care an only daughter of Donado. The latter dying, Donado, whose enjoyment of a large fortune depended on his having a child, bribes the nurse to pretend it was Manfredi's daughter that had died, and adopts the neglected infant. These facts are unfolded in the course of the story: for the poem, in the true epic style, *in medias res* *rapit*, and opens at that eventful period when, as the author expresses it,

' To woman's height the young Venusia grew,

(A form more lovely nature never knew !)' p. 2.

Donado destines her to be the bride of a rich gouty old lord; but she is rescued from this fate by Lucilio, the hero of the poem, a man far above her own age, and who had already lost a wife and a daughter. He was first introduced to Venusia as her music-master; but they soon became enamoured of each other; a circumstance that was hastened by Donado's obstinate perseverance in the match he had proposed. After a faint struggle with filial duty (for there is not as yet the least suspicion against Donado's paternity), Venusia consents to make her lover happy; and the marriage ceremony being privately performed, they repair to Milan, where they,

• With

- - - - - ' With delight,
Hide their endearments from the public sight. ' p. 36.

Donado's rage upon the occasion is stern and inflexible; not a momentary gust of passion, but a fixed determination to sacrifice Lucilio to a revenge which absorbs every other principle of action. This is now the leading interest of the poem. We hear alternately of the sanguinary projects of the old villain; the various retreats in which the lovers eluded his vengeance, and the occupations and amusements with which they filled up the years of their concealment. Their last place of shelter is the retreat of Manfredi; and Donado, having traced them thither, determines to execute his vengeance in person, and, disguising himself like a Turk, enters a shrine devoted by Lucilio to morning prayer. As the poem is now drawing to a close, the reader perceives the necessity of some revolution in Donado's character, and is prepared to find music once more triumphant. It would not have been easy indeed to make it probable, that a soul so hardened in guilt, which throughout the poem had never betrayed one symptom of goodness, should be softened and subdued by the magic of sweet sound; but the principle which does operate so sudden a change is still more unaccountable. He had supposed Manfredi confined by sickness; but he is mistaken; Manfredi appears before him; and the sight of this man, instead of exasperating his rage, which was the more natural effect, extinguishes all desire of revenge, and unexpectedly awakens in his mind a moral sensibility of a very amiable description. This transformation leads the various parties through the usual forms of explanation, confession, and reconciliation.

After this account of the plot, and specimen of the versification, we believe most of our readers will agree with us in thinking, that the author would have saved himself a good deal of unnecessary trouble, had he given us the story in the common form of a novel. At present, it is nothing but a novel in rhyme: for we cannot call *that* poetry, where the glimmerings of fancy or poetical fire are so 'few and far between.' Nothing, indeed, but an ill directed ambition could have induced him to put on those fetters, which he carries so ungracefully, that they are for ever clanking in our ears. The humbler plan we suggest would also have afforded him a better opportunity of introducing his lyrical pieces, according to the example of many who have adopted that method of embalming their fugitive poetry. But our author, *Maonii carminis ales*, soared higher. It appears from the preface, that he considers it as an essential improvement, to diversify a long heroic poem with smaller pieces of various measure; and he presents the *Triumph of Music* as a grand experiment on the

the public taste, which is likely to fix an æra in the history of poetry. 'I have now (he says) made the experiment; but the full success of it is only to be learnt from the voice of our country.' The idea was perhaps well conceived in our author's particular case; for he seems conscious, by adopting it, that the great defect of his versification is monotony; and when he suspects his readers may be nodding under the effects of this powerful opiate, he applies a gentle stimulant in the form of a song or a sonnet. But we can never consent that the succedaneum of weakness should be erected into a rule of composition. There is, without doubt, a tendency to monotony in a long heroic poem; and it is one of the difficulties with which poets have to struggle. But it is a difficulty which our classical writers have not sought to get rid of by such inartificial contrivances: their ambition and glory have been, to overcome it by the vigour of their lines, and the variety of their cadence. The epic poets of antiquity were as much exposed to the danger of monotony as our modern rhymers. The hexameter verse must be managed with infinite dexterity, not to fatigue the ear. A schoolboy's verses may be perfectly correct in quantity: yet no man can read ten of them, without being struck with their heavy monotonous sound. Let him then take up Virgil, and read an equal number of his lines. He will find in the latter a richness and varied melody, which could only be effected by the consummate art of the poet. If Mr Hayley's patchwork plan were at all consistent with taste, it is too obvious to have lain concealed for ages, in order to be revealed to a minor poet of the nineteenth century.

As to the lyrical pieces themselves, they are not at all calculated to recommend the novelty of the plan. 'There are not fewer than seventy songs, sonnets and hymns, scattered through the work. They seldom arise naturally from the story, but are pressed into the service, in a manner which plainly shews that the poem was made for them, rather than they for the poem. We look upon them as the sweepings of the author's port-folio, in which, for his credit, they should have rested for ever. A few of them, the author says, he found medicinal to his own mind under severe affliction, and these, on that account, notwithstanding the want of poetical language, are considerably interesting; for the sorrows of a parent are a subject sacred to sympathy and reverence. We shall give the following sonnet and song as specimens:

SONNET.

Of the rich legacies the dying leave,
Remembrance of their virtue is the best;
How opulent am I in this bequest,
Which I from you, my buried friends, receive!
Nor force, nor fraud, can e'er my heart bereave

Of this my noblest wealth ! The miser's chest
To this is poor : this, hoarded and carest,
Irradiates life, forbidding grief to grieve !

God's kindest gift ! I prize it as I ought,
And blest him that I hold it justly dear :
Reviewed in daily and in nightly thought,
I find it still with endless value fraught ;
Still inexhaustible, though lavish'd here,
And still to be enjoyed in truth's eternal sphere. ' p. 98.

SONG.

' There is, good heaven ! a sacred charm
In that pure love we pay the dead,
Which may the rage of grief disarm,
Nor let her dark delirium spread :

'Tis when fair truth to her fond gaze,
In glory's light, her idol shews ;
Then, listening to that idol's praise,

Grief feels a tender, proud repose. ' p. 7.

In one or two more of the same cast, we meet with some pretty sentiments clumsily expressed ; but the rest are trash, that scarcely deserve a place among Watts' Divine Hymns, or even the labours of a Grub-Street sonneteer. We cannot allow the piety of such hymns as the following to plead for their poverty.

HYMN.

' Lord ! in whose hand are life and death,
So let me live ; so let me die :
That love may grace my vital breath,
And faith and hope my final sigh ! ' p. 96.

There is a hymn in the 2d canto which seems to be a favourite of the author's. To give it a fair chance of becoming so with the reader, we shall extract it :

HYMN.

' Without the help of God,
Nor innocence nor faith are sure
Their being to retain ;
Or *trial from the fiends* endure,
With no contagious stain :
Not safe the path by angels trod
Without the help of God !

Without the help of God,
The powers of wisdom, courage, youth,
Dissolve, *like steel, by rust* :
The blazing eye of spotless truth
Is only rayless dust ;
And *mental fire, a senseless cloud*,
Without the help of God !

Without

Without the help of God,
 All is decay, delusion all,
 On which mankind rely :
 The firmament itself would fall,
 And even nature die
 Beneath *Annihilation's* nod,
 Without the help of God !' p. 37.

We have seldom seen a more exquisite mixture of tameness and extravagance than this. Indeed, we could not read a single page, without astonishment that a man, who has been so long a dabbler in poetry, and devoted his whole life to the study of the fine arts, should have sinned so grossly against good writing. Who could have expected such lines as the following from the pen of a literary veteran ? *Venusia* has just vowed to *Lucilie* never to marry the old noble *Zanetti* :

' That sound exalted him to feverish bliss ;
 Grateful he gave her hand a burning kiss.
 Intoxicated friendship made a trip ;
 He touch'd, in blind temerity, her lip :
 But angry lightning from *Venusia's* eye,
 Pierc'd his pale form—he could not speak or sigh !
 * * * * In penitential awe,
 The *mute instructor* hasten'd to withdraw :
 The *modest maiden* would not bid him stay ;
 But for their meeting named a future day !' p. 14.

It would be swelling needlessly the length of an article, already out of all proportion to the importance of the subject, were we to point out, more in detail, the faults both of the story and of the language. The reader is sure to find them, if he opens the book at all. He will be immediately struck with that constant characteristic of an inferior poet, the abundance of insignificant epithets ; such as, ' awful gratitude (p. 114.), hideous peril (119.), shuddering terror, *security's* sure veil,' &c. &c. He will find *pride*, on account of its convenience in rhyming, in high favour, furnished with a whole wardrobe of epithets, and appearing in a new suit almost every time he meets it. It is *Venetian* (3.), *ecstatic* (22.), *speechless* (42.), *honourable* (11.), *zealous* (31.), *illusive* (34.), *sportive* (113.), *freakish* (61.), *connubial* (146.), &c. He will discover no less sterility of fancy than want of taste, in the conduct of the similes and metaphors—that important part of poetical embellishment ; for example,

Quick, tho' seeming slow, arriv'd the morn,
 When, like a nightingale upon a thorn,
 The tender songstress ceas'd her song, to meet
 Her kind preceptor. ————— p. 16.

Yet, on reflection, this simile may not be so flat as we at first imagined ; for perhaps the author meant to imply, not only that
 the

the songstress sung like a nightingale, but that she *sat upon thorns* till her lover arrived. The reader will also hear of 'fiery storms,' in which 'the mind is like a shrivell'd scroll,' (p. 21.); and of an assassin, 'through whose cleans'd heart unfeign'd repentance ran.' This is metaphor run mad.

Upon the whole, we sincerely hope, for Mr Hayley's sake, that he has bid an eternal adieu to the Muses; for, whatever else the world may say of his poetry, it will not complain of his having written too little. A prose work is announced at the end of the present volume; and we shall be happy to find it such, as to redeem his credit with the public, and fix his reputation on the only basis that can give it stability.

ART. VI. *Essai sur les Avantages à retirer de Colonies Nouvelles dans les Circonstances presentes.* Par le Cit. Talleyrand.

Memoire sur les Relations Commerciales des Etats-Unis avec l'Angleterre. Par le Meme.

(From the Memoires de la Classe des Sciences Morales et Politiques de l'Institut National.)

THE name of the author gives these tracts no inconsiderable share of interest: but they derive a still more permanent claim to our attention, from the importance of their subject, and from their intrinsic merits. We have therefore judged it proper to present our readers with some account of them; and as they evidently belong to the same class of discussion, we have brought them together for examination, although they may appear to be separated by their titles.

On his return from America, whither he had emigrated during the first stage of the French revolution, M. Talleyrand seems to have been strongly impressed with the situation in which he found his countrymen, after the violence of the Jacobin times had subsided. Their minds were still in an unsettled and turbulent state; and there seemed great reason to dread both the commotions of those restless spirits whom the times had engendered, and the effects of that apathy which, in the great mass of the people, generally succeeds to extreme irritation. The latter of these topics, however, is but slightly touched upon; and, without considering the fatal consequences of the cooperation of these two evils, or reflecting on the impossibility of preventing a few factious men from placing their leader upon a throne which

which the general indifference might prepare, and the universal dread of new revolutions might fortify, Talleyrand (at the date of his work, only a speculative inquirer) directs his regards entirely to the means of providing a safe retreat for those unquiet spirits whom the revolution had left behind it. The state of the country in which he had lately resided, struck him as somewhat analogous to that of his own. He reflected on the singular case with which all the violence of a revolutionary civil war had there subsided; and was naturally led to conclude, that industry is the grand pacificator, both of individuals and of nations; the best conservator both of domestic tranquillity and social peace. The impossibility of adopting direct measures for promoting new exertions of labour among the people at home, was too obvious to require any exposition; and the observations which he had made upon the fabric of society in the infant settlements of the American continent, suggested, as the best means of accomplishing the great end in view, a recurrence to the colonial system, then almost overthrown by the crimes and follies of the revolutionary government.

The papers now before us, are evidently dictated by this train of reflection; but they have assumed a more general form, and contain a variety of discussions upon the principles of colonization. Independent of the epigrammatic force and eloquence of their style, and of their more substantial merits as sound and ingenious speculations upon a subject of equal difficulty and importance, they cannot fail to interest us in their practical applications. They were the result of actual observation in countries where the author had access to the best information, or was actually engaged in affairs. They were drawn up with a view to influence the conduct of France, under a government in which he soon after bore an active part. Subsequent events prove, that they were not without effect in shaping the measures of that ambitious power. These tracts, it should be observed, however, appear in a form purely speculative; their reasonings are general and philosophical; formed indeed upon facts, but guided by large, scientific views; by an appeal to principles at every step; and by the kind of argument that inferior statesmen deride as theoretical, while their adversaries are conquering the world by the combinations to which it leads. The views of political economy by which our author seems to have been guided, are liberal and enlightened. He knows thoroughly the best doctrines of the science, and is fully impressed with their truth. It will be difficult indeed for our readers to believe that the writer of some of the passages which we mean to extract is a leading personage in the present fiscal administration of France.

And,

And, however much the recollection may lead us to lament so striking an instance of talents and knowledge enslaved by sordid principles, it is comfortable to think, that there are among the rulers of that country, some whose lights are superior to their conduct, and that the justness of their original views may one day triumph over the gross ignorance and petty ambition of their more powerful coadjutors.

The general Essay on Colonies, contains a deduction of the advantages which must accrue to France, from a careful attention to the colonial system; and points out the principles that ought to guide her in the formation of new settlements. The memoir upon the relations between England and America, is apparently written with a view of recommending, by a practical exemplification, the general principles of colonization; but the argument is couched under the form of an attempt to explain several political facts which the author remarked during his travels over the greater part of North America; and truly, if the former of these papers makes us wish that every statesman, and especially the present rulers of France, were actuated by such liberal views as the author inculcates, it is impossible to read the latter, without lamenting that no traveller has ever appeared so capable as M. Talleyrand, of instructing his country by the scientific observation of foreign nations; and that he himself has not devoted his life to a pursuit pointed out alike by his genius and his acquirements. We express our admiration of this man's writings, without any fear of misconstruction. It would be as foolish (were it as possible) to shut one's eyes to the lustre of talents, as to despise an enemy who is strong by their aid. Great as the resources of France are, if they were not wielded by such men as Talleyrand, she would soon cease to be the object of that watchful anxiety which, in the actual posture of affairs, is the wisest part of wisdom.

Two great objects, according to our author, are to be gained by the planting of new colonies, in the present state of France. A vast body of people has been either thrown idle by the revolution, or so corrupted by habits of intrigue and excesses of violence, as to be now incapable of regular industry. To open an egress for these troublesome spirits, and at the same time to derive profit from the qualities which render them useless and dangerous at home, is the double advantage of planting new settlements. The example of America, by a striking analogy, points out the former benefit; the latter is sufficiently clear of itself. In the United States, our author was surprised to observe, that a long and violent civil war had left scarcely any trace of its existence in the character or intercourse of the various factions which

divided the people. No hatred or animosity was perceivable among individuals; no turbulence or agitation of character had been permanently engrafted on the sober, solid habits of the colonists. None of those symptoms, in short, were observable, which, for ages after a violent and general conflict, always endanger the internal security of nations whose structure has assumed a regular form and consistency. The profound remark of Machiavel appeared for once to fail, 'that every revolution contains the seeds of another, and scatters them behind it.' The peculiar situation of the American people furnishes an easy explanation of this happy peculiarity. Our author justly observes, that though the change no doubt excited all those revolutionary dispositions which in other countries have prolonged the reign of anarchy, and formed abundance of characters fitted for profiting by such an alteration of popular habits, yet the vast extent of the country afforded a constant vent for the most restless activity in projects useful to the community, and tempting to the individual; drew off to a distance from the theatre of dissensions, those whose violence had not been calmed by victory; and (he might have said) secured an agreeable retreat to the numerous remains of the Royalist party. He eloquently describes that continent as a

—pays vaste et nouveau—où des projets aventureux amorcent les esprits, où une immense quantité de terres incultes leur donne la facilité d'aller employer loin du theatre des premieres dissensions une activité nouvelle, de placer des esperances dans des speculations lointaines, de se jeter à la fois au milieu d'une foule d'essais, de se fatiguer enfin par des deplacemens, et d'amortir ainsi chez eux les passions revolutionnaires.'

Now, as France, with much more of that turbulent spirit, has not at home the same opportunities of quenching it, our author infers that it should be drawn off by colonial establishments, the only expedient which can enable a well peopled and cultivated country to unite the advantages peculiar to new settlements with those possessed by full-grown communities. He rapidly sketches the reasons that have induced the various emigrations recorded in history, and finds that they all owed their origin to far less pure motives than those which at present concur in recommending the scheme to France. The violence in which many of those plans originated, and the total failure of every one that did not soon assume a milder and juster aspect, he holds up as a lesson well worthy of attention. All colonial measures, according to him, should begin with the fair and open offer of a settlement from Government; and he states it as a striking proof, how essential freedom of choice is to the success of such plans, that those ancient republics which were constrained to send out colonies, by the narrowness of their territory, proposed the emigration as an allure-
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lurement, and did not enforce, by positive law, even what was necessary for the existence of the state. Let us, says he, imitate the policy to which the most prosperous of those establishments owed their origin, and avoid, as much as possible, the errors which modern nations have committed in following the example of the ancients. From sage measures of this sort, he expects every advantage will result to France. She has only to propose a colony, and the offer will be joyfully received. In describing the probability of this favourable reception, he enumerates rapidly, but with great force of language, and perfect accuracy, all the motives which concur to recommend such an emigration to so many descriptions of his countrymen. The passage is too striking, both for diction, and for acute, comprehensive thought, to be omitted in an account of these speculations; nor shall we attempt to injure it by a translation.

‘ C’est en nous emparant de ce qu’ont de plus pur ces vues des anciens, et en nous défendant de l’application qu’en ont faite la plupart des peuples modernes qu’il convient, je pense, de s’occuper dès les premiers jours de la paix de ce genre, d’établissements qui, bien conçus et bien exécutés, peuvent être après tant d’agitations la source des plus précieux avantages.

‘ Et combien de Français doivent embrasser avec joie cette idée ! combien en est-il chez qui, ne fut-ce que pour des instans, un ciel nouveau est devenu un besoin ! et ceux qui, restés seuls, ont perdu, sous le fer des assassins, tout ce qui embellissoit pour eux la terre natale ; et ceux pour qui elle est devenue inféconde, et ceux qui n’y trouvent que des regrets, et ceux même qui n’y trouvent que des remords ; et les hommes qui ne peuvent se résoudre à placer l’espérance là où ils éprouveront le malheur ; et cette multitude de malades politiques, ces caractères inflexibles qu’aucun revers ne peut plier, ces imaginations ardentes qu’aucun raisonnement ne ramène, ces esprits fasciés qu’aucun événement ne désenchante ; et ceux qui se trouvent toujours trop referés dans leur propre pays ; et les spéculateurs avides, et les spéculateurs aventureux ; et les hommes qui brûlent d’attacher leur nom à des découvertes, à des fondations de villes, à des civilisations ; tel pour qui la France constituée est encore trop agitée, tel pour qui elle est trop calme ; ceux enfin qui ne peuvent se faire à des égaux, et ceux aussi qui ne peuvent le faire à aucune dépendance.

‘ Et qu’on ne croie pas que tant d’éléments divers et opposés ne peuvent se réunir. N’avons-nous pas vu dans ces dernières années depuis qu’il y a des opinions politiques en France, des hommes de tous les partis s’embarquer ensemble pour aller courir les mêmes hasards sur les bords inhabités du Scioto ? Ignore-t-on l’empire qu’exercent sur les âmes les plus irritables, le temps, l’espace, une terre nouvelle, des habitudes à commencer, des obstacles communs à vaincre, la nécessité de s’entr’aider remplaçant le désir de se nuire, le travail qui adoucit l’âme, et l’espérance qui la console, et la douceur de s’entretenir du pays qu’on a quitté, celle même de s’en plaindre, ’ &c.

But if the finding employment for the persons described in this passage is in itself a great advantage to the mother country, our author conceives the acquisition of rich and flourishing colonies, more especially in the present circumstances of France, to be no less important. The natural tendency of colonial settlements to throw off their dependence, has received too many illustrations from the events of the last thirty years, not to present governors with one of those near and certain prospects which ought to exercise a practical influence over their immediate arrangements. The loss of America to England, M. Talleyrand plainly deduces from causes neither accidental nor peculiar; and it is evident, from the whole tenor of his reasonings, that he views the attempts to restore order in the French West Indies, as neither likely to succeed in the mean time, nor, even if attended with temporary success, as sufficient to ward off, for any considerable period, the blow which circumstances, beyond the reach of edicts and armies, have prepared in the western wing of the French empire. The radical vices of the political system in the islands, their extent, position and climate; above all, the structure of their society; are clearly what he means by '*cette force des choses qui fait la destinée des états, et à laquelle rien ne résiste.*' While, therefore, he recommends a due attention to measures which may aim at a reparation of the manifold evils produced by the impolicy of the revolutionary government in St Domingo and Guadaloupe, he enforces the necessity of being prepared for the more likely event, a general failure of all such plans, and a total destruction of the French colonial power in the new world. Let France look about her, says this wary statesman, and see if there are no other countries where new settlements may conveniently be undertaken as a substitute for the colonies which may so soon be lost; and let those colonial establishments be formed upon principles which shall prevent the recurrence of the disasters that have befallen the West Indies. It is for the purpose of shewing what are the right kinds of colonies, what are the settlements most safe and secure in themselves, and most likely to ensure a continuance of commercial relations, even after they may have become independent of the mother country, that the memoir upon the United States is evidently conceived. The result of the inquiry is an inference in favour of agricultural settlements, where the natives of the soil are able to cultivate it; and a warning against all such schemes as those to which the negro system owes its origin. The territory where these plantations may be settled, is plainly described. After a few words about the islands along the coast of Africa, M. Talleyrand seems to fix upon Egypt as the proper spot. Choiseul, it is well known, foresaw

foresaw the probable separation of all the American colonies, without exactly predicting the manner in which the islands were to be lost; but he was so impressed with the likelihood of this event, that he entered into measures for the acquisition of Egypt as a settlement which might serve to France instead of all her West Indian territory, and for the same purposes. Talleyrand, nearer the fulfilment of this prediction, and more accurately acquainted with the manner in which it was to be accomplished, asserts as a truth beyond all dispute, that sooner or later the emancipation of the negroes must overthrow the cultivation of the sugar colonies; and adds, ‘il est politique d’aller au-devant de ces grands changemens, et la première idée qui s’offre à l’esprit, celle qui amène plus de suppositions favorables, paroît être d’essayer cette culture aux lieux mêmes où naît le cultivateur.’ Let it be recollected, that the Egyptian expedition was undertaken a few months after this memoir had been read to an assembly to which the captain of the enterprise belonged; and that the author of these opinions was actively engaged in the government which planned the conquest; little doubt will remain of a position so well supported by its internal evidence, though obstinately discredited by most of our political reasoners, that the great and ultimate object of the capture of Egypt was the settlement of a colony which might serve as a refuge for the agriculture of the West Indies. It is difficult to say whether the view of proceeding against India from that quarter was ever in the contemplation of the French government further than as a possible accessory to the main project,—an incidental and distant advantage, which might render Egypt still more valuable, but was not essential to its importance. Enough was surely gained by that memorable expedition, if its success secured to France the finest colony in the world; raised her to the height of commercial prosperity, from an almost total annihilation of her trade; enabled her to sacrifice all her expensive and sickle dependencies in America, without a single inducement to make one additional struggle for their preservation; and gave her the certainty of ruining in a few crops all the colonial prosperity of her rival. To consider this as the leading, and even the ultimate object of the Egyptian plan, can now no longer be reckoned chimerical; nor ought this confirmation, from external evidence, of a position in itself so well founded, to diminish our exultation in the defeat of the enterprise, or our precautions against its repetition. On the contrary, it may with safety be asserted, that the utmost risk to which our East Indian settlements could ever have been exposed from the existence of a European colony in Egypt, would have been nothing, when compared with the certain advantages they must

have derived from such a neighbourhood; while the ruin of all our West Indian possessions was the inevitable and fatal consequence of cultivating that fertile and extensive country. It is not to be expected, that schemes so systematically formed, and upon such deep-laid foundations, will be easily given up. The Egyptian plan has too many solid recommendations, and more especially since the new failure of the French government in the West Indies, to be abandoned, because it once miscarried in a manner nearly unaccountable. The extent of the calamity which must result to England from its success, can never be fairly estimated by those who obstinately persist in placing their fears on the wrong side of the world. But all those who dread the accomplishment of the scheme, from whatever motives,—whether from viewing Egypt as the key of India (an idea which some affect to understand), or from regarding its cultivation as incompatible with the colonial system of England in the west, must unite in recommending preventives, rather than remedies; in despairing of once more retaking the province with an inferior force; and in wishing that the plea of necessity may be listened to, when it shall be urged as a reason for England herself seizing upon Egypt, should no other means remain of saving it from the dominion of France.

There is some inaccuracy, it must be observed, in the view of ancient policy which M. Talleyrand has taken. He has proceeded upon the common idea that the ancient republics which sent forth colonies were too full of inhabitants; that want of subsistence began to oppress them; and that the government, alarmed at the prospect of famine, invited the citizens to emigrate and settle in distant countries. That the smallness of their territory, and the progress of population were the general remote causes of almost all such schemes, cannot be denied; but it is very clear, that they were neither the immediate, actuating principles, nor the principles kept in view by the rulers in the foundation of colonial establishments. The increasing disproportion between numbers of inhabitants and means of subsistence, is felt in a very indirect manner, and never attracts the notice of governments. A famine, indeed, like a plague, or any other casualty, makes rulers think upon the comforts of the lower orders, and has generally made them think in such a way as to occasion new calamities of the same kind. The general fear of accidental scarcity has often the like bad effect, and induces the adoption of measures which ensure and aggravate the evil apprehended. But no government ever attended much to those symptoms by which the disproportionate increase of population begins to make itself known in old countries. The gradual fall
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of wages, the diminution of profits upon stock, the difficulty slowly augmenting of finding employment either for talents, industry, or wealth; these are the great marks of an overstocked community, and they proceed too insensibly to attract the notice of rulers. When men feel those inconveniences and hardships so pressing as to overcome their love of home, they naturally look out for a new residence. They do not wait till actual famine drives them from their country; still less do they wait until the government has provided a retreat. The spirit of adventure, and the love of change, always tempt the first settlers. It is these principles (and not the government) which found the colony, to which, fear of want may in the end make others less restless and daring resort. Instead of praising the ancient republics for not forcing their subjects to emigrate, we ought only to commend them for not checking the spirit of emigration, which causes, unattended to by the government, were exciting. It was not the government which felt for the people, and gave an issue to their overgrown numbers; it was the people who felt the diminution of their happiness at home, and induced the government to employ them abroad, or permit them to employ themselves. When the rulers interfered any farther,—when they began the scheme; it was never with a view to relieve their subjects, but with an eye to extension of territory and the subjugation of foreign states.

When our author contrasts the conduct of modern nations with that of the ancient republics towards their colonial establishments, and asserts that modern colonies have been peopled by the vices rather than by the wisdom of the mother country, he evidently means to blame the treatment of the natives, in whose territory the colonies were settled, as well as the oppressions which generally promoted the emigration. Thus, he does not accuse Spain and Portugal of peopling their colonies by persecuting their own subjects, but only of laying waste the continent and islands of America in order to found their new dominions. In arguing, however, for the advantages of extending the colonial system, he does not keep this general remark sufficiently in view. He seems to think, that the sending a French colony to any part of the globe, is fully justified by a proof that the plan is useful to France. A word is indeed said about *negotiation*; but the actual conduct of the government to which our author, immediately after writing this paper, acceded, is a sufficient proof that his plan referred not to matter of right, but of power. What inconsistency can be greater than first blaming Spain for seizing South America and oppressing the Indians, and then stripping a friendly power of its finest province, and butchering thousands of negroes in the West Indies?

But nothing can be more liberal and enlightened than the principles which our author proceeds to recommend for the conduct of France, in the proposed schemes of colonization. Without enumerating the remarks which he makes upon this important part of the subject, we shall only extract the following summary of his commercial opinions, after premising that the whole of the tract is conceived in the same spirit.

‘ C’est donc sur la connaissance anticipée des interets reciproques, fortifiés par ce lien si puissant d’origine commune, que l’établissement doit être formé, et sur la force de cet intérêt qu’il faut compter pour en recueillir les avantages. A une grande distance, tout autre rapport devient, avec le temps, illusoire, où est plus dispendieux que productif : ainsi point de domination, point de monopole ; toujours la force qui protege, jamais celle qui s’empare ; justice, bienveillance ; voilà les vrais calculs pour les états comme pour les individus, voilà la source d’une prospérité reciproque. L’expérience et le raisonnement s’unissent enfin pour repousser ces doctrines pusillanimes qui supposent une *perte* par-tout où il s’est fait un *gain*. Les principes vrais du commerce sont opposés de ces préjugés : ils promettent à tous les peuples des avantages mutuels, et ils les invitent à s’enrichir tous à la fois par l’échange de leurs productions, par des communications libres et amicales, et par les arts utiles de la paix. ’

We recommend a careful perusal of this passage to all those who are engaged in regulating the commercial policy of states, and especially we would recommend it to the attention of M. Talleyrand himself, an active minister in the government which, of all others, seems influenced by the most pitiful views of mercantile affairs, which is exerting its influence in favour of the very worst system of restraint, and endeavouring, by every means, to revive the most pernicious of the errors long ago exploded in the speculative as well as the practical branches of political economy.

We have already remarked, that the evident object of the memoir upon the North American commerce, is to point out the kind of colonial system which is best calculated to secure a beneficial intercourse between the mother country and the colonies, even after the state of political dependence is at an end. Viewing a separation as the natural consummation of all such plans, our author is anxious to explain, how the relations of trade may be made to survive this event ; and he examines, at great length, the circumstances which have maintained the connexion between England and the United States, long after the cessation of their political ties. Considered merely as a speculative explanation of the subject, this discussion is extremely beautiful. The fact to be accounted for, that since the American war, the trade between England and the United States has more than doubled, is certainly explained in a manner perfectly satisfactory. The American

can colonies were entirely English. They were knit to the mother country, not by laws and governments, but by identity of origin and language, similarity of character, habits, and political institutions. The English manufactures were necessary to countries utterly destitute of all but agricultural industry; the English merchant sold cheaper and on longer credit than any other in the world. Not only the best goods for the money were to be had from him, but goods of such excellent quality were not to be had for money in any other quarter. Not only prompt payment was dispensed with by the English trader, when all other dealers insisted on it, but the former regularly allowed his American customers to retain the use of his capital until it had yielded the gross profits, and then was satisfied with a smaller portion of the gain for his net allowance than other lenders could afford to take. All these advantages, the consequences of established skill and long experience, with a great stock, and old habits of mutual dealings, were sufficient to preserve the mercantile connexions between the mother country and her late colonies, in full force, even if the powerful ties of language, manners, and blood, had not united their influence in the same direction. Compared with these bonds of attachment, what were the obligations which the colonies owed to France for assisting them in throwing off the yoke of Great Britain? The Americans, indeed, never believed that France was their real friend; they only gave her credit for being the enemy of England. But, although they had acknowledged the full extent of their debt, and felt the utmost gratitude of which their nature admitted, would such feelings have followed them into their counting-houses and ware-rooms? With every eye streaming out in love for their deliverers, would they have altered one inch the course of a single penny, destined, like all the pence of all the traders and all the consumers in the world, to follow, not the objects of their attachment, but the cheapest goods, and the easiest creditors? There is no wonder, then, that the trade between England and America should have continued in its wonted channel, in spite of their political separation, and of the political services of France. That channel is never open to any public influence, and feels only the force of one motive, individual interest.

Such being the substance of our author's general statements, and so undeniable their accuracy, we are the more surprised at his having intermingled with them a considerable portion of erroneous doctrine, not only palpably unfounded, but for the most part repugnant to those very remarks, as well as unnecessary to the main object of the discussion. The mistakes into which he has fallen, are chiefly the three following.

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In the *first* place, He blames the old government of France, for having prepared, by its impolitic conduct, the renewal of the commercial relations between England and the United States. France, according to him, should have endeavoured to multiply and extend the connexions which, during the war, she had established with the people of America. Instead of this, she began to fear the introduction of those principles at home which she had fomented abroad; and discouraged all further intercourse. Now, although this discouragement of intercourse was certainly a ridiculous, as well as impolitic measure, it would be difficult to shew what active means could have been used to prevent the renewal of the trade with England, or even to increase, in any sensible degree, the French commerce with America. In the face of all the circumstances already stated, the force of which must have been omnipotent in favour of the English market, even if France had spent her whole revenue in senselessly pushing her American trade by encouragements, how can it be supposed that the new relations between America and England could be in the least degree affected by any measures which the French government might pursue? Unless the *ancienne regime* possessed the power of making the merchants richer, the manufacturers more skilful, and the people more English than the English themselves, a feat which *lettres de cachet* have never been known to perform; it cannot be blamed for not having drawn away the Americans from the markets of Great Britain. For the same reason, we must confess our inability to comprehend how the following proposition has been deduced from the doctrines above analyzed, inasmuch as it appears to be in direct repugnance to them.

'It is a consequence of these statements respecting America,' says M. Talleyrand, 'that the conduct of government during the first years of peace, determines the commercial relations of the state; and if the rulers cannot seize the moment for turning the period of tranquillity to their account, it almost inevitably operates against the best interests of the country.'

Secondly, In mentioning the long credits allowed by English traders to their American correspondents, our author remarks, that they no doubt are obliged to make up for permitting their capital to lye out, by charging so much more profit upon the transaction. This is a very strange inadvertency in one so well acquainted with political economy, and with the details of trade. If the English capitalist reimbursed himself by an advance of interest for the long credit which he gave his customer, this surely could not be called an accommodation. The long credit is exactly a diminution of profit; it is one of the ways in which a great

great competition of capitals, in a well stocked country, tends to bring down the gains of each trader. France or Spain could give as great credit as Holland or England, were they to charge higher in proportion as the term of payment was delayed,—were they, in fact, to charge interest for the loan. It is because, without this additional charge, England can afford to sell at long credits, and to buy at ready money, that she pushes her trade where France cannot reach. So far, then, from the English merchants repaying themselves for the long credit which they give their American customers, this credit, unrecompensed, is the cause of their capital finding employment in the American states, and the consequence of that capital being very extensive. M. Talleyrand seems to think it voluntary on the part of the creditor; an accommodation which he allows his debtor for a certain consideration. On the contrary, it is a matter of necessity, and is forced upon him by the competition of other capitalists, while it is rendered practicable by the great extent of his own stock.

In the *third* place, Our author falls into an error of a much more general and fundamental nature, in stating the progress of the American commerce with England. Instead of simply asserting that the mercantile relations between the two countries, interrupted by the war, were revived after the peace, and continued as close after the independence of the United States, as they had been during the existence of the colonial government; he assumes that those relations were multiplied and extended in consequence of the separation, and that Great Britain was therefore a gainer by that event. He only takes care to warn France not to reckon upon a similar gain when she gives up her colonial dominions; observing, with great justice, that the cases of the continental and insular settlements are by no means parallel. The fact upon which this doctrine is founded, does, however, in no degree warrant such an inference. The consumption of English goods in America had increased when our author wrote, to three millions Sterling, from less than one half the sum, its amount after the peace of Versailles. But where is the proof that the same augmentation would not have taken place though the colonial system had been preserved? It surely is not in consequence of the change, that the population of the States goes on doubling every twenty-five years; for, before the rupture, the increase of numbers proceeded at a rate somewhat more rapid, from the mere circumstance of the total amount being considerably less. Nor can the substitution of a primary for a subordinate form of government, have promoted the clearing of the forests, when, before the revolution, ground was constantly prepared

prepared for the tens of thousands which each year added to the mass of the inhabitants. And if the freedom of navigation be suspected of having augmented the American wealth, it must be shewn, in the first place, that all our author's own reasonings on the closeness of the voluntary connexion between England and America are false; and that what he justly terms the *voluntary monopoly*, has no existence. In truth, this monopoly which has survived the navigation laws, is the clearest possible proof, that the only effect of those laws was to enforce what must have taken place naturally. If a trifling commerce be now carried on by American traders with foreign nations; and if, in consequence of its profits, the Americans are enabled to buy a little more from England than they otherwise could have done, the difference is probably more than counterbalanced by two circumstances, both effects of the revolution,—the exclusion of the Americans from a free trade with one of their best markets, the British West Indies,—and their receiving the articles of foreign growth at first hand, instead of getting them, as formerly, through the medium of the mother country. The former of those circumstances has injured both the growth of the United States, and of the colonies which remain dependent; the latter has been favourable to the United States, but has been attended, of course, with a slight direct detriment to Great Britain; and this must be set off against the indirect advantages which she reaps from the benefit which the same circumstance confers on the North Americans. The effect of both these circumstances upon Great Britain, taken together, must obviously turn the balance of the profit and loss arising from the free trade of the Americans somewhat against her. She indeed retains the power of admitting them to a full share of the West Indian commerce; but the question is, whether, in point of fact, the increase of demand for British goods has been owing in any degree to the independence of North America; and, indeed, the possible advantages which England may derive from a change of her navigation laws, in favour of the United States, can no more enter into a list of the good effects produced by the revolution, than the advantages she might have derived from a change of the same laws in favour of the North American colonies, can enter into a list of the good effects which would have accrued from a continuance of their dependence. We are therefore decidedly of opinion, that M. Talleyrand's assumption (for he does not argue at all to this point) of the superior closeness of mercantile connexion between Britain and America, in consequence of their political separation, is entirely unfounded. That the natural circumstances of relationship, which arose out of the original

ginal connexion, maintained unbroken the intercourse between the two countries, and permitted their commerce to go on increasing as rapidly as it would have done, had the ancient ties of colonial subordination subsisted, is the utmost extent of the conclusions which the facts and arguments warrant, even as stated by M. Talleyrand himself. No attempt is made to demonstrate, that the change has augmented those relations of commerce ; and although it were proved that such had been the effects of the revolution, still it would remain to shew that Great Britain had been a gainer by the loss of her American dominions ; in other words, that profit upon stock is all a great nation has to think of in the management of its affairs.

We shall here take our leave of these interesting tracts ; but we cannot resist the temptation of presenting our readers with a specimen of those talents for philosophical observation and for general description of manners, which made us regret, in a former part of this article, that M. Talleyrand had not devoted himself to supply the great desideratum in modern literature, a scientific political traveller. The following picture of American society is indeed very striking : and the character of the planter is placed in a point of view considerably less romantic than that in which both American and European dealers in sentiment have been accustomed to give it. We have only to premise, that when M. Talleyrand blames the inaccuracy of classing fishing with agriculture, he forgets that the arrangement never bore any reference to the effects of the two pursuits upon the character or manners of the persons engaged in them ; it related entirely to the connexion of those employments with national wealth.

‘ Que l’on considere ces cités populeuses remplies d’Anglais, d’Allemands, d’Irlandais, de Hollandais, et aussi d’habitans indigenes ; ces bourgades lointaines, si distantes l’un de l’autre ; ces vastes contrées incultes, traversées plutôt qu’habitées par des hommes qui ne sont d’aucun pays : quel lien commun concevoir au milieu de toutes ces disparités ? C’est un spectacle neuf pour le voyageur qui, partant d’une ville principale où l’état social est perfectionné, traverse successivement tous les degrés de civilisation et d’industrie qui vont toujours en s’affaiblissant, jusqu’à ce qu’il arrive en très peu de jours à la cabane informe et grossière construite de troncs d’arbres nouvellement abattus. Un tel voyage est une sorte d’analyse pratique et vivante de l’origine des peuples et des états ; on part de l’ensemble le plus composé pour arriver aux élémens les plus simples ; à chaque journée on perd de vue quelques unes de ces inventions que nos besoins, en se multipliant, ont rendues nécessaires ; et il semble que l’on voyage en arrière dans l’histoire des progrès de l’esprit humain. Si un tel spectacle attache fortement l’imagination, si l’on se plaît à retrouver dans la succession de l’espace ce qui semble n’appartenir qu’à la succession des temps, il faut se résoudre à ne voir que très peu de lieux sociaux, nul caractère commun,

mun, parmi des hommes qui semblent si peu appartenir, à la même association.

• Dans plusieurs cantons, la mer et les bois en ont fait des pecheurs ou des bûcherons ; or, de tels hommes n'ont point, à proprement parler, de patrie, et leur morale sociale se réduit à bien peu de chose. On a dit depuis long-temps que l'homme est disciple de ce qui l'entoure ; et cela est vrai ; celui qui n'a autour de lui que des deserts, ne peut donc recevoir des leçons que de ce qu'il fait pour vivre. L'idée du besoin que les hommes ont les uns des autres n'existe pas en lui ; et c'est uniquement en décomposant le metier qu'il exerce, qu'on trouve le principe de ses affections et de toute sa moralité.

• Le bûcheron Americain ne s'intéresse à rien : toute idée sensible est loin de lui ; ces branches si élégamment jetées par la nature, un beau feuillage, une couleur vive qui anime une partie de bois, un verd plus fort qui en assombrit une autre, tout cela n'est rien : il n'a de souvenir à placer nulle part : c'est la quantité de coups de hache qu'il faut qu'il donne pour abattre un arbre, qui est son unique idée. Il n'a point planté ; il n'en fait point les plaisirs. L'arbre qu'il planteroit n'est bon à rien pour lui ; car jamais il ne le verra assez fort pour qu'il puisse l'abattre : c'est de détruire qui le fait vivre : on détruit par-tout : aussi tout lieu lui est bon ; il ne tient pas au champ où il a placé son travail, parce que son travail, n'est que de la fatigue, et qu'aucune idée douce n'y est jointe. Ce qui sort de ses mains ne passe point par toutes les croissances si attachantes pour le cultivateur ; il ne suit pas la destinée de ses productions ; il ne connoît pas le plaisir des nouveaux essais ; et si en s'en allant il n'oublie pas sa hache, il ne laisse pas de regrets là où il a vécu des années.

• Le pecheur Americain reçoit de sa profession une ame à peu près aussi insouciante. Ses affections, son intérêt, sa vie, sont à côté de la société à laquelle il croit qu'il appartient. Ce seroit un préjugé de penser qu'il est un membre fort utile ; car il ne faut pas comparer ces pêcheurs-là à ceux d'Europe, et croire que c'est comme en Europe un moyen de former des matelots, de faire des hommes de mer adroits et robustes : en Amérique, j'en excepte les habitants de Nantuket qui pêchent la baleine, la pêche est un metier de paresseux. Deux lieues de la côte quand ils n'ont pas de mauvais temps à craindre, un mille quand le temps est incertain, voilà le courage qu'ils montrent, et la ligne est le seul harpon qu'ils sachent manier : ainsi leur science n'est qu'une bien petite ruse ; et leur action, qui consiste à avoir un bras pendant au bord d'un bateau, ressemble bien à de la fainéantise. Ils n'aiment aucun lieu ; ils ne connaissent la terre que par une mauvaise maison qu'ils habitent : c'est la mer qui leur donne leur nourriture ; aussi quelques morues de plus ou de moins déterminent leur patrie. Si le nombre leur paroît diminuer à tel endroit, ils s'en vont, et cherchent une autre patrie où il y ait quelques morues de plus. Lorsque quelques écrivains politiques ont dit que la pêche étoit une sorte d'agriculture, ils ont dit une chose qui a l'air brillant, mais qui n'a pas de vérité. Toutes les qualités, toutes les vertus qui sont attachées à l'agriculture manquent à l'homme qui

livre à la pêche. L'agriculture produit un patriote dans la bonne acception de ce mot ; la pêche ne fait faire que des cosmopolites.

We are far from considering every part of this picture as accurately drawn from nature. On the contrary, there are not a few of its lines which resemble a composition rather than a portrait. But in the general, it is unquestionably like ; and every touch, even the most partial, betrays the hand of a master. Who that looks at it does not recognize, to take only a subordinate merit, that turn of expression which has gained for its author the reputation of being indisputably the wittiest of the present generation ?

ART. VII. *Flora Britannica.* Auctore Jacobo Edvardo Smith, M. D. Societatis Linneanæ Preside, &c. Londini, tom. I. & II. 1800; III. 1804. 8vo. White.

FEW countries can boast of such a variety and profusion of plants as the British Islands. This circumstance has been noticed by all the botanists who have attended to the enumeration of our indigenous vegetables ; and though it unquestionably increased the difficulty of their undertaking, appears only to have excited the ardour of scientific men ; and from this cause has arisen both the number and the excellence of our *Flora*.

The first professed enumeration of the British plants, with which we are acquainted, was by William How, in his *Phytologia Britannica*, Lond. 1650, 8vo. In 1660, Ray began his botanical career, by publishing his *Catalogus plantarum circa Cantabrigiam nascentium*, Cant. 8vo. He was followed, in 1667, by Merret, who extended his researches indeed throughout every kingdom of nature, in his *Pinax rerum Britannicarum*, Lond. 8vo. A few years after this, Ray enlarged his original plan, and produced the *Catalogus plantarum Angliæ*, Lond. 1670, 8vo.

The preceding works were only catalogues, with the addition of the places of growth ; but Ray, who saw the advantages of systematic arrangement in the recent publication of Morison, and in his own *Historia plantarum*, published in 1690 the first edition of the *Synopsis methodica stirpium Britannicarum*, Lond. 8vo. In this he gave, not only the characters of the several genera, but also the synonyms and uses of the plants, with several other remarks, tending to facilitate the progress of the student. A second edition of this justly celebrated work appeared in 1696 : and as Ray had amended his system in 1703, a third edition of the *Synopsis*, rendered agreeable to this emendation, and with large additions,

additions, was published by Dillenius in 1724. This work has always been esteemed one of the most complete *Floræ* that any country had at that time produced.

Linnæus having promulgated, with great success, several new doctrines, in regard to the disposition and denomination of plants, was speedily followed by a number of English botanists. It must indeed be allowed, that natural history is highly indebted to that celebrated Swede. By a scientific inquiry into the method pursued by nature, the genera of plants were fixed by him upon a firm foundation, far different from the vacillatory methods of his predecessors. In this respect his system is indisputably superior to that of Ray. But in justice to the latter, as one of the most industrious naturalists that Britain has ever produced, we must remark, that these two systematists had different objects in view. Linnæus sought for the most proper characters of the natural genera of plants, however difficult of investigation. Ray, on the contrary, paid more attention to conveniency; his primary object being to introduce young students to an acquaintance with the names that had been given to plants, without being very anxious whether that knowledge was acquired in an empirical or philosophic manner. In the higher divisions, viz. the classes and orders, these two naturalists appear to have changed characters: here, Ray attempted to follow the divisions of nature itself, while Linnæus adopted an artificial system, of which facility is the principal recommendation. The observation and expression of the number of the parts, are certainly capable of a more exact determination than most of the other generic characters. This has occasioned botanists to acquiesce in his system, although number is one of the most variable of all characters; but this acquiescence has perhaps prevented them from attempting to detect the natural method of plants; and thus, the very man to whom botany is under the highest obligations, may be said, in one respect, to have contributed more than any other to hinder its arriving at perfection.

Hudson, in his *Flora Anglica*, Lond. 8vo, 1762, adapted Ray's Synopsis to the system of Linnæus, adding, however, several new species. To the synonyms and places of Ray, Hudson made only a few additions; the time of flowering was the principal improvement. On the other hand, the remarkable structures, and the uses of plants, which had been noticed by Ray, were omitted by Hudson. A second edition of this *Flora* was published in 1778, in which numerous alterations were made in the species, particularly in the grasses. For instance, in the first edition of his *Flora*, Hudson not only kept all the Linnæan species of *Agrostis* and *Bromus* distinct, but even added several new ones, viz. *Agrostis palustris*

palustris and *sylvatica*, *Bromus erectus* and *ramosus*; not to mention the additions in the other genera. In the second edition, as if he meant to compensate in some degree for his former multiplication of the species, he joined together not only the species he had introduced, but also several of the Linnean ones, under the comprehensive trivial name of *polymorphus*. Thus, *Agrostis polymorpha* contains not only his own new species, *palustris* and *sylvatica*, but also the Linnean species, *pumila*, *capillaris*, *stolonifera*, and *alba*. In like manner, *Bromus polymorphus* contains the *mollis* and *secalinus* of Linnæus.

The botanical arrangement of British plants by Withering, was, in the first edition of 1776, little more than a mere translation of Hudson; but, in the third edition of 1796, it was greatly improved.

The above are the most noted general Floræ. Symons has lately published his *Synopsis plantarum in insulis Britannicis indigenarum*, 8vo, Lond. 1798; in which, however, the three last orders of the class *Cryptogamia* are omitted. In the following year, Hull gave to the world his *British Flora*, Manchester, 8vo; a small but excellent manual for the practical botanist in his excursions. Of more circumscribed Floræ we have also several of note. Lightfoot, in 1777, published his *Flora Scotica*; and, in 1785, Relhan, treading the steps of Ray, produced the *Flora Cantabrigensis*, to which, at different periods, three supplements were afterwards added by himself. It was not, however, until a still later period, namely 1794, that the students of the sister university had equal facility in their botanical pursuits, by means of Sibthorp's *Flora Oxoniensis*.

Other authors, instead of confining their attention to particular places, have rather chosen to take peculiar genera of British plants under their consideration. Of these we need only mention Goodenough, whose genus *Caren*, is published in the Transactions of the Linnean Society; and Sole, whose *Menthe Britannica* was published in 1798. These monographiz display great accuracy of research, and shew, in a very striking manner, the advantage to be derived from this mode of contributing assistance to the science.

Notwithstanding the pains that have been taken in the investigation of British plants, much remained to be done, in respect to the more exact determination of the species. For this task, no person could be better qualified than Dr Smith, since, in addition to his skill in botany, he is in possession of the original *herbarium* of Linnæus, and hence could readily satisfy himself respecting the true application of many of the Linnean names. This power of referring to the identical plants designated by Linnæus,

was of the greatest utility, as his names have frequently been erroneously applied. Independent of these errors, a copious source of perpetual alteration of the species, and consequent change of name, has arisen from the progressive improvement of the science.

In order to exhibit a clear view of the principal improvements, which the botanical experience and accurate investigation of Dr Smith has enabled him to make on the former publications on this subject, we shall mention them under distinct heads, beginning with the alterations and additions made in the genera. In the course of this review, we shall principally advert to the *Flora Anglica* of Hudson, as, although the publications of Withering and Hull are later in point of time, we consider the former to be the most proper object of comparison. It is necessary, however, to premise a few words respecting the general plan and execution of the work.

The plan upon which the learned author has proceeded, is, in itself, more complete than that of any other British *Flora*, and is formed on the best models of the Linnean school. To each class is prefixed an account of its characters, those of its several orders, and a synopsis of the genera, all of which had been omitted by Hudson. The essential characters of each genus are given, and amended differences of the several species, their trivial names being placed in the margin. To these succeed the synonyms of other authors, in which we have to notice the improvement of quoting the trivial names, where any have been given, rather than the specific differences: the English names follow*. The soil in which the plant is usually found, the particular places where it has been observed in the British isles, and the authority on which this information rests, succeed; the two last articles being, with great propriety, expressed in English. The account of each species concludes with the duration, time
of

*The general excellency of this work is such, that we felt ourselves little disposed to find faults in it. We cannot, however, help observing, that we could have wished a distinction had been made between the usual English names by which the plants are known in their places of growth, and those new-coined names which are little more than literal translations of the Latin ones, proposed for adoption, but not actually in use.

Hudson, by the advice of Stillingfleet, introduced, in our opinion very injudiciously, these anglicised botanic names. The frequent changes which take place in the genera, renders this kind of language too fluctuating for common use; and the Latin names are fully sufficient for more botanical purposes.

of flowering, and a complete description even of the common plants. To this is sometimes added a few observations of importance.

The two first volumes, reaching as far as the end of the class *Syngenesia*, appeared in 1800: the publication was then interrupted, and the third was not published till 1804. This reaches to the end of the order *Cryptogamia Musci*, and we wait with impatience for the three remaining orders, which will no doubt furnish abundant matter for another volume; as the class *Cryptogamia* has, since the time of Ray and Hudson, been so increased, by the labours of Hedwig, Bernhardt, Persoon, Dickson and others, that, in the recent publication of Hull, it occupies nearly one half of his *Flora*.

The genera which have been added to those in Hudson are very numerous. Thus, in the class *Triandria*, we have not only *Sesleria*, adopted from Scopoli by Withering, of which the only species was the *Cynosurus ceruleus* of Hudson, but also *Knappia*, the *Agrostis minima* of Hudson; and the *Cerastium umbellatum* is removed from *Decandria*, and restored to its original situation, as a species of *Holosteum*. In *Tetrandria*, *Exacum* (the *Gentiana filiformis* of Linnæus and Hudson) and *Epimedium* are introduced; also *Radiola*, separated from *Sinum*. In *Pentandria*, besides *Tamarix* and *Corrigiola*, we have *Meum*, containing only one species, *M. Athamanticum*, the *Athamanta meum* of Linnæus and Hudson. In *Hexandria*, we find *Leucogonum* and *Tulipa*, already noticed by Withering and others. In *Polyandria*, the genus *Chelidonium* is separated, as by Jussieu and Gærtner, into *Chelidonium* and *Glaurium*: to the species of the latter Dr Smith has affixed the ancient trivial names, considering them preferable to those given by Linnæus. In *Didynamia*, *Linnea* is introduced, as in Withering and Hull, *L. borealis* having been found in Scotland by Professor Beattie. In *Tetradynamia*, Dr Smith has added *Coronopus*, from Gærtner; and, in *Monadelphia*, he has followed Le Heritier, in separating the genus *Geranium* into two, viz. *Erodium* and *Geranium*. In like manner, he has, in *Syngenesia*, taken *Pyranthrum* out of the *Matricaria* of Hudson, in which he follows Gærtner and Haller. In *Gynandria*, *Malaxis* is added as in Withering and Hull from Swartz. In *Monocia*, the *Eriocaulon* of Linnæus, which name had by Hudson been altered to *Nasmythia*, is restored. In the two orders of the class *Cryptogamia*, contained in the present publication, several new genera have been introduced. In *Filices*, we have *Aspidium* and *Cyathea*, taken from *Polypodium*; *Scelopendrium* taken out of *Asplenium*; *Blechnum*, of which the only species, *B. boreale*, was formerly called *Osmunda spirans*; and *Hymenophyllum*, made up of the *Trichomanes nudigenis* and *pynidiferum*,

pyxidiferum, united into one species by the name of *H. turbrigense*. In the *Musci*, the alterations are still more numerous, as not only the *Buxbaumia* of Linnæus, Withering, and others (*Phascum montanum* of Hudson) is introduced, but also the new genera, *Gymnosomum*, *Andrea*, *Tetraphis*, *Encalypta*, *Grimmia*, *Dicranum*, *Trichostomum*, *Tortula*, *Orthotrichum*, *Pterogonium*, *Neckera*, *Funaria*, and *Bartramia*. These genera, most of which are taken from Hedwig and Swartz, are principally formed out of the old genera, *Bryum*, *Hypnum*, and *Mnium*.

The attention which has of late been paid to botany, has introduced numerous improvements in the arrangement, or in the enunciation of the characters of the ancient genera. Of these improvements, the learned author has availed himself; and we shall now notice the removals which have taken place among the genera. *Chara*, formerly placed in the *Cryptogamia Alga*, was removed to *Monandria Monogynia* by Withering and Relhan: Dr Smith follows their example. *Zostera* is also removed, from *Gynandria Polyandria*, to the above class and order. *Callitriche*, in consequence of the sexes being sometimes in separate flowers on the same plant, was removed by Hudson from *Monandria Digynia* to *Polygamia Monoecia*; but is now brought back again to its former situation, in consequence of a general principle, to which Dr Smith has adhered, namely, to take out of the class *Polygamia* such plants as differ only in their sexual organs, and place them in the classes to which their hermaphrodite flowers belong. This principle is certainly a very good one, as it tends to prevent an useless dislocation of analogous genera. Indeed we may observe, that the whole class might be broken up, and its genera removed to the several classes of hermaphrodite flowers: we confess, however, that considerable difficulty would occur respecting the place of *Atriplex* and *Mimosa*. The latter genus is unknown in the British islands; consequently the class, as it now stands in Dr Smith's *Flora Britannica*, contains only *Atriplex*. All the other genera are removed, *Holcus* to *Triandria Digynia*, *Egilops* (now called *Rottbollia*) to the same class and order: *Valantia* is included in the genus *Galium*, and affords a remarkable instance of the improvement these alterations have produced. *Parietaria* is removed to *Tetrandria Monogynia*; *Aser* to *Ocandria Monogynia*; *Fraxinus* to *Diandria Monogynia*; and *Ilex*, as in Withering and Hull, to *Tetrandria Tetragynia*. Professor Thunberg was the first, we believe, who proposed to remove the *Syngenesia Monogamia* to *Pentandria*; a step in which he is followed by Dr Smith. As those plants, from the simple structure of their flowers, assorted but ill with the compound flowers of the remaining plants of the class, we cannot but con-

sider their removal as an improvement in the arrangement which was loudly called for. *Drosera* was, by Linnæus, classed in *Pentandria Pentagynia*; but it was removed by Hudson to the next order *Hexagynia*, because the British species never have five pistils: Dr Smith follows him in this removal. We think, however, that the most general number of the whole genus should characterize it, although such number might not be found in the British species. *Arum*, a genus which has constantly puzzled botanists to arrange and describe with propriety, is now placed in *Monoecia Polyandria*. On this change, Dr Smith observes,

‘Flores nequaquam gynandri sunt. Locum in hac classe sibi vindicat organia masculinis, respectu femineorum, supernè aut internè positis, ut in plantis monoicis floribusque compositis univèrsis ferè conspicieundum est, nec externè aut internè, ut in omni flore simplici.’

This reason appears sufficiently strong to justify the genus being taken out of the class *Gynandria*, where it has so long stood as a plant with simple flowers. At the same time, we must remark, that if we look upon the flower as compound, then each single anther will constitute a male-floscule, and the genus should be placed in the first order of this class, *Monoecia Monandria*, as was indeed done by Schreber and Berkenhout. *Ruscus* and *Bryonia*, which constituted the order *Dioecia Syngenesia*, are both removed: the first, to the order *Dioecia Triandria*; the other on the authority of Miller, who says of this plant ‘adultior sæpe monoica,’ to *Monoecia Pentandria*. The genus *Lycopodium* is removed from *Cryptogamia Musci* to the *Filices*. In addition to these changes, of which every botanist must see the propriety, Dr Smith is doubtful whether *Pilularia* ought not to be removed from *Cryptogamia*, *Filices* to *Monoecia Polyandria*; and he also observes, that *Isotetes* would probably be arranged with more propriety in *Monoecia Monandria*, than among the *Filices*.

The author has bestowed equal pains in the determination of the species; and we meet with such numerous emendations of Hudson's *Flora*, and so many additional species, as evince the rapid improvement of the science, and bear testimony to the author's diligence and accuracy. To follow him through all these alterations would be a tedious task; but we think it right to notice a few of the more remarkable ones; previously remarking, that the author has usually contented himself with making the necessary alterations in the specific differences, synonyms and descriptions; leaving the reader to discover the nature or cause of the alteration; though we think it would have been better to have mentioned, in few words, the reasons upon which he has proceeded.

Among the new species, we particularly notice the *Crocus nudiflorus*,

disflorus, the *Scirpus multicaulis*, and the *Eriophorum polystachion* of Linnæus. The latter is not the plant designated by this name in the works of Hudson, Relhan, Sibthorp, and Curtis; that being now called, after the example of Dickson, Withering and others, *E. angustifolium*. An entire new species of *Poa* is described by the author.

Hudson, in attempting to follow Linnæus, had given the name of *Lolium temulentum* to a wrong plant, viz. the *L. arvense* of Withering and Smith. This error is now corrected, and both the *Lolium arvense* and the true *Lolium temulentum* of Linnæus are enumerated as British plants. *Galium Witheringii*, discovered by Withering, was erroneously conceived by him to be the *Galium montanum* of Linnæus, as Hudson and Relhan had before mistaken *G. saxatile* for it. *Anchusa officinalis* has, it appears, been found in Northumberland. *Campanula rapunculoides* has also been found both in Scotland and in Oxfordshire. *Lonicera Caprifolium* is also conceived by the author to be an indigenous plant. In *Ribes*, four new species have been added to those in Hudson, namely; *R. spicatum*, *Petraum*, *Grossularia*, and *Uva crispa*. Respecting the two last, Dr Smith very justly observes, that the marks by which they are distinguished are very uncertain specific distinctions, and, of course, that they may perhaps be more properly considered only as varieties of the same species. In *Gentiana*, two species are added to those in Hudson, viz. *G. verna*, and *nivalis*. Two species of *Bunium* are now enumerated, namely, *B. Bulbocastanum* and *flexuosum*. It is to the latter species that the *B. Bulbocastanum* of Hudson, Relhan, and Curtis, is referred. The *Narcissus poeticus* of Hudson is now called *N. biflorus*, and is described as a species distinct from the true *Narcissus poeticus* of Linnæus, which is also a British plant. Symons and Hull have erroneously given the name of *Juncus Jacquini* of Linnæus to a new species, called by Dr Smith *J. castaneus*; and he also suspects the *Epilobium roseum* of Symons to be only a variety of *E. tetragonum*. In *Sanifraga*, several new species, not contained in Hudson, are introduced, as *S. umbrosa*, *cernua*, *rivularis*, *cæspitosa* (a different species from the *S. cæspitosa* of Hudson), *moschata* (which is perhaps Hudson's *S. cæspitosa*), and *palmata*: of these, *S. rivularis* and *cæspitosa* are newly discovered in our islands. *Spergula pentandra* is admitted on the authority of Dillenius, as Dr Smith has not yet been able to discover it himself; the *Spergula saginoides* is also added, having been found on the Scottish mountains by Mr Mackay, to whom we are also indebted for the *Lythrum esula* now introduced. The author has also been induced, by his own observations and those of Mr Crowe, to form a new species, under the name of *Rubus corylifolius*, of the plant that

that Withering had described as a variety of *R. fruticosus*, and which appears to have been already noticed as a distinct species by Dillenius, in his edition of Ray's Synopsis: to this genus is also added another species, the *Rubus arcticus* of Linnæus. The *Ranunculus parvulus* is also admitted, having been found near Bristol. In *Mentha*, Dr Smith has made good use of Mr Sole's observations on this genus, without, however, constantly following him: several varieties, in many of the species, are accurately distinguished, and a few new species are added to those enumerated by Hudson, as *M. odorata*, *acutifolia*, *gentilis*, also *M. rubra*; by which last is not meant the plant mentioned under that name by Hudson (now considered as a variety of *M. gracilis*), nor that so called by Sole (now named *M. gentilis*), nor even that of Miller (now *M. odorata*), but the *M. verticillata* of Ray, or *M. sativa* of Sole.

Here we cannot help remarking the great impropriety of shifting the trivial names from one species to another. Whenever any alteration takes place, a new trivial name, not hitherto applied to any plant of that genus, ought to be proposed; and, if a species is divided into two, each should undoubtedly receive a new name. For want of attending to this very necessary precaution, we are frequently reduced to the necessity of quoting, not only the author, but even the identical work, and, in some cases, the edition; or, to avoid this, to give the specific difference; either of which is a manifest departure from that brevity which it was the object of Linnæus to introduce by the employment of trivial names. The impropriety is still greater, when, as is sometimes the case, the names are counterchanged, of which we have an instance in this genus, *Mentha*. The *M. sylvestris* of Smith is the *M. rotundifolia* of Sole; and, *vice versa*, the *M. sylvestris* of Sole is the *M. rotundifolia* of Smith.

The author has not made less use of Mr Sutton's observations on the genus *Orobanche*: to the two species mentioned by Hudson, three have been added, as in Hull, viz. *elatior*, *minor*, and *cærulea*. The *Thlaspi hirtum* of this last botanist, is considered only as a variety of the *T. campestre*; the true *T. hirtum* of Linnæus is added, as it appears, from comparing the characters given by Ray, of the *T. vaccariæ incano folio, perenne*, with the specimens in the Linnæan herbarium, to be really the same species. *Erysimum præcox* is inserted on the single authority of Petiver, certainly none of the strongest. In *Fumaria*, we find three additional species, *solida* (*F. intermedia* of Hull), *lutea* (*F. capnoides* of Hull), and *parviflora*; the last being the *F. tenuifolia* of Symons; but the synonyms which he has given us of this species, Dr Smith judges to be entirely erroneous. In *Vi-*

cia, we meet with another instance of Hudson and Withering having applied the Linnæan names to a wrong plant; the name of *V. hybrida*, a very rare plant in the British isles, having been given to a new species, now distinguished by the name of *V. levigata*. *Lotus diffusus* of Solander, is introduced for the first time into our Flora; and the *Graphalium sylvaticum* of Hudson is here more properly called *G. rectum*; while the true *G. sylvaticum* of Linnæus is added as a new species. Dr Smith is of opinion that *Tussilago Petasites* and *T. hybrida* are of the same species, which is dioecious, the former being the male, and the latter the female. *Senecio squalidus*, although common on every wall about Oxford, has hitherto escaped our botanists. *Centaurea Isnardi* has been found in Jersey. We now arrive at *Carex*, in which genus, in consequence of Dr Goodenough's labours, great additions and alterations have been made. In the first edition of Hudson, only twenty-six species of it were enumerated; in Hull, they were increased to forty-six; but, in the present work, the genus contains fifty-two species: four of these species are not to be found in any of our Floræ, viz. *Davalliana*, *tomentosa*, *melchiana*, *levigata*. In the genus *Salix*, a still greater addition of species has been made. From eighteen species as it stood in the first edition of Hudson, or twenty-two, as in the late publication of Hull, it has been augmented to forty-five. Of these there are eight which are entirely new.

The additional species in the *Cryptogamia Musci*, several of which are now first described, are so numerous, that it would take up too much space to enumerate them. Suffice it to say, that this order is now nearly trebled; in the first edition of Hudson, it contained only 112 species; but, in the present work, the number is increased to 320, although, as we have already noticed, *Lycopodium* is removed to the *Cryptogamia Filices*.

Having thus noticed the principal species of the more perfect plants that have been introduced, it remains to say a few words concerning the species that have been removed from one genus to another, which are scarcely less numerous. Being, however, for the most part, of less consequence, we shall pass rapidly over them; and, at the same time, mention an instance or two, of changes that have taken place within the same genus. The *Alopecurus aristatus* of Hudson is now *Pbleum crinitum*. The *Avena elatior* of Linnæus is changed into *Horus avenaceus*. *Lolium bromoides* of Hudson, is now *Festuca uniglumis*; to the same genus is referred the *Bromus giganteus* of Linnæus, while, on the other hand, the *Festuca sylvatica* and *pinnata* of most botanical authors are referred to *Bromus*, the trivial names being retained. *Arundo colorata* of Solander and Smith, was the *Phalaris arundinacea* of Linnæus.

Linnæus. By some gross mistake, Hudson and Relhan had so confounded the *Arundo calamagrostis* and *epigejos*, that they applied the name of the one plant to the other. Withering, who formed a genus named *Calamagrostis*, which included both these species, also assigned the trivial name *epigejas* to the *Arundo calamagrostis* of Linnæus; and this mistake is not corrected by Hull. *Daucus Carota* had by Hudson, in his second edition, been removed to *Caucalis*: in this removal, however, he was not followed by any other botanist; and Dr Smith has, with much propriety, replaced it in its original situation. The *Sium verticillatum* of Smith, was considered by Linnæus and Hudson as a *Sison*; but the author observes,

‘Ex umbellis multiradiatis, involucro et involucello polyphylo, petalisque cordatis, Sium potius quam Sison mihi videtur.’

The *Hyacinthus non scriptus* of Linnæus, Hudson, and most other botanists, is now called *Scilla nutans*; the genus is, of course, omitted; and the author attempts to justify the removal, by the following remarks.

‘Dubii generis herba gaudet floribus campanulatis, tametsi non monopetalis, ut in hyacintho; structurâ verò partium, figurâ staminum, totoque habitu Scilla est; nec obstat corolla, in hac specie, ut in S. Peruvianâ Linn. & S. campanulatâ Hort. Kew. persistens.’

The *Cucubalus viscosus* of Hudson, now referred to *Silene paradoxa*, has, as Dr Smith observes, occasioned many errors.

‘Millerus, pro *Lychnide* majore noctiflorâ Dubrensi perenni Raianâ, in horto Chelseano coluit, et cum Linnæo communicavit, Silenem paradoxam; ut ex Herb. Linn. et Mus. Brit. (*H. Sicc. n. 294. 30.*) patet. At in herbariis Buddlei et Petiveri, in eodem museo (*H. Sicc. n. 124. 5. et n. 152. 86.*) repositis, specimina Silenis cujusdam, prorsus diversæ et mihi ignotæ, in ipso agro Dubrensi, ut videtur, lecta, nuper vidi. Hæc verò, malè conservata, ad novam generis tam difficilis speciem describendam, haud optimè valent; et in eorum loco natali *Silene nutans* tantum hodie observatur. Quid igitur faciam? Confusio pristina manebit, donec planta Raiana botanicis de novo sese offerat.’

The *Cucubalus Behen* and *C. Otites* of Linnæus and Hudson, are also referred to the genus *Silene*. *Cratægus terminalis* and *Aria*, *Sorbus domestica*, *aucuparia* and *hybrida*, (the last being however a very dubious British plant), are all considered as belonging to *Pyrus*. And hence, as *Cratægus Oxyacantha* is referred to *Mespilus*, both these genera, viz. *Sorbus* and *Cratægus*, are entirely omitted. In like manner, *Melissa Calamintha* and *M. Nepeta* are removed by Dr Smith to *Thymus*; and the genus *Melissa* is of course omitted. So also, *Myagrum Sativum*, *Cochlearia Coronopus*, and *Lepidium didymum* of Linnæus, are referred to other genera; the first to *Alyssum* (*Moenchia* of Gmelin, Withering and Hull); the other two to *Coronopus*: *Myagrum* consequently is no longer

longer enumerated as a British genus of plants. The *Brassica muralis* and *Monensis* of Hudson, are returned to the genus *Sisymbrium*; as *Cardamine petraea* is to *Arabis*. In the same manner, the *Hedysmum hieracoides*, *teetorum*, and *biennis* of Hudson, are returned to the Linnæan genera from which that botanist had removed them, namely, *Picris* and *Crepis*. In the class *Cryptogamia*, the removals are still more numerous.

We have thus related the principal improvements which Dr Smith has introduced into the British Flora. A comparison of this work with similar ones, will shew the most careless observer the great superiority it possesses over them. The species are more accurately determined, and, in many cases, referred to more proper genera. The synonyms appear to have been examined with great care; and Dr Smith professes to have quoted none, except such as he had himself ascertained to be right.* If to these we add the complete description given of every species, the botanist will easily conceive the highly finished state in which the work is given to the public. We have, therefore, no doubt but that Dr Smith will receive from all quarters, the praise to which he is so justly entitled.

ART. VIII. *Memoires de l'Academie des Sciences de Turin*. Année 1792 à 1800. Tom. VI. 2 Parties. pp. 600. 4to. Turin, 1801-2. De l'Imprimerie Nationale.

THIS volume contains many interesting and original productions of the various learned Italians who belong to the Turin Academy. The papers which struck us as peculiarly worthy of attention, belong to the chemical, mathematical, and electrical departments of science. In each of these classes, we find much to admire; and after shortly noticing the subjects of these tracts, we shall proceed to lay before our readers a more detailed account of their contents, beginning with the chemical papers.

I. The chemical papers which principally deserve attention, are three—'On the phosphoric light of certain stones rubbed with a feather or a glass pin'—'Examination of hydrogenous gas after it had been kept many years,' both by Count Morozzo; and a tract upon

* In one instance, however, we have found an erroneous reference, viz. in p. 280, *Kali spinosum cochleatum*, Raii Syn. 107; this ought to be 159. In *Prunus infilitia*, the synonyms of Hudson are omitted; in the first edition, it bore the same name; but in the second, it was joined with *P. domestica*, under the name of *P. communis*.

upon the combustion of sulphur and the metals, by the Chevaliers St Real and Maître.

II. The mathematical papers are of great ingenuity, and their subjects very important—'On the resolution of numerical equations of all degrees'—'On a problem of difficult analysis,' (viz. to describe the greatest possible ellipsoid in a papezioid or irregular solid), both by the Abbé Caluso—'On the resolution of equations of all orders,' by the Abbé Franchini—'On the division of circular arcs,' by M. Michelotti—and 'An essay on the problem, An integral number being given for a side of a right-angled triangle, to find all the pairs of integral numbers which form the other two sides,' by the Pere Saorgio.

III. The electrical papers are likewise valuable—'On the law of Volta,' by Dr Canali—'Solution of some questions in electricity,' by the Abbé Eandi—'On the utility of conductors,' by Abbé Vassalli—'On the muscular attractions produced by animal electricity,' by Messrs Julii and Rossii.

I. We begin with the first of these divisions, reserving the other two for a future opportunity.

Of the Phosphoric Light which some Stones give when rubbed with a Feather or a Brass Pin, and particularly of the Phosphorescence of the Tremolite and the Cyanite, with some Observations on the Positive and Negative Electricity of different Stones.
By the Count de Morozzo.

After reciting the facts formerly observed on this subject, with which our readers are sufficiently acquainted, Count Morozzo proceeds to detail some circumstances which presented themselves in the course of his experiments upon these curious appearances. These experiments were chiefly made with a very delicate electrometer, invented and constructed by the Abbé Vassalli, described in the last volume of the Turin Memoires, and preferred by Count Morozzo to every other.

With this instrument, good tremolite crystals gave, when rubbed, signs of considerable positive electricity, as did also the Dolomie; but Cyanite Blende and Cadmie, though very luminous, gave no marks whatever of electrization. In this manner, our author was driven from his first opinion, that the phosphorescence of stones is caused by electricity; and he continued his trials, in order to discover the true cause. He found that marbles, and all calcareous spars, when rendered luminous, gave proofs of negative electricity; that the barytic and gypseous and selenitic spars gave marks of positive electricity, as also the Bologna stone; and that the fluoric spars gave marks of neither the one

one nor the other kind. He infers that the spars containing carbonic acid contain negative electricity; while those which consist in part of sulphuric acid, contain positive electricity. He confirmed this idea, by examining metallic ores, and finding positive electricity in proportion as the acid which neutralized the bases was sulphuric; and negative electricity in proportion as that acid was carbonic. As a farther test of his doctrine, he calcined barytic spar and gypsum: the former, being deprived of its acid, gave negative instead of positive electricity; the latter, when deprived of its acid, gave neither. Our author adds, that these experiments are extremely delicate, and often fail, or give equivocal or contradictory results. This he ascribes, partly to the difficulty of finding substances perfectly homogeneous, partly to variations in the atmosphere, temperature, and manner of manipulating. But, in general, he thinks his experiments sufficiently consistent to authorize the inference, that there subsists some connexion between carbonic acid and negative electricity; between sulphuric acid and positive electricity. He concludes by noticing the experiments of 'le celebre Anglois M. John-read,' (meaning Mr John Read), with his doubler of electricity, and pointing out their coincidence with his own. This is remarkable in three points: first, that gentleman found, that atmospherical air, in a state of purity, is always positive; secondly, that when corrupted by vegetable or animal putrefaction, it is negative; and, lastly, that respiration in a close chamber renders the electricity of its atmosphere negative, when before it was positive. We extract the concluding sentence of this neat and interesting little tract, as a specimen of modesty not too common among philosophers, even among those of France and Italy.

'Ce n'est qu'un aperçu que je presente à l'Academie. Ces experiences ont besoin d'être beaucoup diversifiées, et recevront par des mains plus habiles le degré de perfection que l'on peut désirer.' Part I. p. 149.

The light given out by stones, &c. may thus be thought by many to be an electrical phenomenon; and it may be supposed that this paper belongs rather to the last of the classes into which we have divided these Memoirs. But, besides that the experiments of Count Morozzo do not by any means warrant such an inference, we have thought it proper to place his speculations in the present article, because they refer directly, in our opinion, to a subject which presents important obstacles to the new chemical system; and, in this particular, resemble both the other memoirs of which this class is composed.

Phosphorescence, in general, is by no means ranked among the processes of combustion by the French system of chemistry. The light,

light, unaccompanied by any sensible heat, which certain stones give out after exposure to the sun, or any very luminous body; and the inferior degree of radiation which is perceived in almost all bodies, whether inflammable or not, when placed in broad daylight, and suddenly transferred into a dark place, (see Beccaria's experiments); these phenomena are commonly referred to the class of optical appearances, and are not supposed to have any connexion with inflammation. It deserves, however, to be remarked, that though the application of heat in all these processes greatly assists the development of light, still they resemble each other, and differ from ordinary cases of irradiation in these two material particulars, that they are carried on without injury to the body, and fail if the body has not immediately before been exposed to the light.

But there is a class of phenomena which resemble more nearly the common appearances of combustion, and which nevertheless ought not, according to the French theory, to be ranked among those processes. We allude to the permanent phosphorescence of certain substances in all circumstances, yet unaccompanied by any thing like oxygenation. Of this description, we shall at present give only one instance, but that a very remarkable one, and one which has not hitherto been examined with the attention it deserves. We allude to the insects commonly known by the name of fire-flies, and abounding in the south of Europe. They resemble, in their size and external appearance, some flies known in the north: their shape is oblong; their wings are covered with an outward shell, like insects of the beetle tribe; the head is red, with a black spot in the centre. In the dark, when they perch or creep, nothing is observable; but as often as they rise to fly, a bright light is perceived. This is not constant during their flight, but recurs every other instant, as if it were disclosed by the opening of their wings at each successive expansion. When laid upon their back, they give out this light constantly, and have much difficulty in turning themselves. The light, when thus examined, is a clear, phosphorescent or lambent flame, of a green or light blue, inclining to yellow. It is very considerable even in one fly; and the light of three or four is sufficient to render small objects around quite visible. It is apparent in twilight. When these insects are examined by daylight, their bellies are perceived to be distinctly divided about the middle, by a line passing across the body. The under part is of a bright yellow, resembling in colour, smoothness, and in every particular, a bit of fine clean straw: the rest of the belly is quite black; the yellow part alone is luminous. When the fly is dead, the luminous appearance still continues for two or three days. If the yellow part be cut off, it shines

shines as brightly as before; and if rubbed between the fingers, a luminous greasy matter, like the bowels, oozes out, tinging the fingers, wherever it touches, with the same kind of lambent flame. This friction speedily terminates the phenomenon, apparently by exhausting the supply of luminous matter. Air is by no means necessary, or at all conducive to this process of phosphorescence: on the contrary, under water, or other liquids, the flies shine as much as in the air.

Here, then, we have an animal process, at first sight, resembling the slow combustion of the blood in the lungs, rendered visible by the extrication of light. We find, however, that no oxygenation whatever attends it. In what manner, then, are we to draw the line between such phenomena? This is not a case which can be explained by saying that light is absorbed, and then given out; for if the animal is kept alive for months in a dark place, the luminous appearance continues; and if it dies, that appearance survives but a short time. Something is evidently secreted, which burns or radiates with a lambent flame, and which does not owe this luminous quality to any previous contact with light. The flame is kept up without air exactly as well as with it. No oxygenation can therefore be suspected. But no perceptible heat is evolved. Neither is any perceptible heat, or any perceptible light evolved in the first stages of combustion and oxygenation; yet the new theory never fails to suppose such an evolution of both; only adding, that it is so slow as to escape the senses. Here, much light is given out; consequently, the process resembles combustion much more than many cases in which it is admitted to take place. In fact, it resembles combustion exactly as much as the first stages of common phosphoric inflammation. How such phenomena are to be severally arranged and denominated in the theory of oxygenation, we are at a loss to discover. We shall return to the same train of speculation, after analyzing the following papers.

Examination of Hydrogen Gas, which had been kept twelve years in a Bottle. By the same Author.

Count Morozzo having been among the first to verify the celebrated discovery of our countryman Mr Cavendish, happened to leave a pint bottle of hydrogen gas well sealed, with three inches of water under it, in his laboratory, from the month of February 1776, and to find it there in July 1797. He immediately tried the simple experiments, to examine the changes which it had undergone.

On opening the bottle under water, an absorption of two inches took place. It burned exactly like common hydrogen gas. A small animal introduced into the bottle was seized with convulsions,

sions, then recovered, and lived 40 minutes; a second lived 30 minutes; and flame was extinguished equally after the death of the first and of the second, if we rightly comprehend the author, (p. 151, Part I.) The quantity of the gas did not permit the Count to make any more experiments; but he proceeds to draw conclusions from those above related. He infers, that the long contact of water ameliorates the gas, probably by developement of oxygen; for the *second* animal lived a considerable time, which could not have happened, had the air been common atmospheric air, deprived of its oxygen by the breathing of the first animal. He next concludes, that the air was ameliorated only as to its power of supporting life, not as to its power of supporting flame.

Our author next refers to a former paper, and denies the possibility of forming a fluid exactly like the atmosphere by artificial means. He shews that there is a remarkable difference between the effects of respiration on the air, formed by mixing azotic and oxygenous gas, and the air of the atmosphere; that in the former several animals live, one after another has died; and that a taper burns in this factitious air, after animals have died in it; none of which circumstances take place in the natural atmosphere. There, a second animal dies quickly after a first has been killed by breathing it, and a taper is instantly extinguished. There must be something, then, says Count Morozzo, in the factitious oxygen, which the oxygen of nature does not possess. He conjectures that this may be the matter of light and heat, in the phlogistical spirit of the Italian philosophers; and refers to the Memoire which we are next to analyze, in support of this opinion.

On this tract we have to remark, first, that it is very unphilosophical in Count Morozzo to speak of *time* as producing changes on the subject of his experiments. He prefaces his paper by saying, that it is to contain an example, not of the changes effected by common substances on the gases, but 'of a change caused by *time*.' He should recollect, that time, though a poetical, is by no means known as a chemical agent. Secondly, The change produced on the hydrogen, we are inclined to think rather a deception than an incontestable reality. The author had only an opportunity of making one experiment; and this may easily have been affected by accidental circumstances. For instance, the animal may have had a great quantity of air in its lungs, and a still larger quantity may have been introduced along with it into the receiver. The whole quantity was originally one pint. From this deduct the space occupied by two inches of water, and the quantity used for burning. Then consider how little remained, and attend to what was done with it. First, one animal was introduced. We are not told if its body was drawn out after it died.

died. Probably it was; and, if so, a considerable bulk of pure air may have entered. Lastly, another was introduced, and, of course, some air accompanied it. Will not this explain the fact of its living 30 minutes in the receiver?

Observations on some Experiments, in which Sulphur or the Metals appear to burn, though in Vessels deprived of Air, and in which Sulphuric Acid is formed without Inflammation of the Sulphur. By the Chevaliers De St Real and Maître.

These experiments and reflections owed their origin to the experiments of the Dutch chemists, in which sulphur was said to have burnt with metals, both in phials closed up, and in tubes filled with the airs generally believed to be incapable of supporting flame, as well as in tubes exhausted by an air pump. Other chemists had conjectured (after trying the same experiments with success) that the decomposition of water is concerned in the phenomenon; for they remarked that those metals are incapable of producing the effect, which are not acted upon easily by water, as bismuth, antimony, cobalt, and mercury. The authors of the paper now before us wished to examine this singular subject, by repeating and varying the experiments of the Dutch philosophers. The results of their trials and reasonings deserve some attention.

Their mode of operating was twofold. They first performed the combustions, together with some other experiments, in a matras, with a valve opening outwards, and in which sulphur could not burn alone. They next repeated the same experiments in the receiver of a convenient air-pump. In all these experiments, the same consistent results were observed. Without metals, no combustion, that is, no combination accompanied by light and heat, took place. A mixture of sulphur and metals always became red-hot, on the application of a gentle heat, and united into a hard, solid, and heavy mass. So far these experimenters had only observed the same facts which the Dutch chemists discovered; but we find two important additions to their discoveries. A light, subtle flame was seen to play on the surface of the glowing mixture at the time of its greatest heat and light. This is said to be a circumstance, of difficult observation, and not always possible to be seen. It is described only in the account of the trials made with the matras and valve, where the vacuum was necessarily imperfect, and is not distinctly referred to when the confirmation of the process is related in the experiments with the air pump. It is only said in general, that the same events took place as before. Yet our authors observe, that they only saw the flame twice during their experiments, and do not particularize whether it appeared both times during their repeated trials with the imperfect

perfect vacuum, or once also during the process with the air-pump.

The other new circumstance remarked by our authors is, that oxydes, well purified, and carefully deprived of all metallic particles, when substituted for the metals, in these experiments, exhibit no combustion, but are suddenly decomposed in vacuo by a gentle heat, the sulphur flying off in sulphurous acid gas, and the metal remaining in part deoxygenated. Iron oxyde not affected by the magnet, was rendered attractable by a process of this sort, and had its colour changed. Copper oxyde rapidly acidified the sulphur, so as even to burst the receiver. The first test of sulphuric acid was muriate of barytes; but the gas being collected in water, and the liquor distilled, a pure sulphuric acid was easily obtained. To this fact our authors attach as much importance as to the discovery of the Dutch chemists. They then proceed to inquire, whence comes the light and heat, and even the flame, in these experiments with reguline metals; and why there is a formation of acid without flame, light or heat, in the process with the oxydated metals. Disclaiming all prepossessions in favour of either the ancient or the modern chemical theories, they observe that the phenomena above related give plausibility to some of Stahl's doctrines, and are repugnant to a part, at least, of the antiphlogistic theory. If the mixture becomes red, say they, in the same manner as quartz exposed to a strong heat, why does a continuance or increase of the heat fail to continue or increase the ignition? The like answer is given to the supposition of the light being phosphoric, like that of fluor spar; and our authors think it fair to infer, that something is contained in the metals, or in the sulphur, or in both, which the new theory has made no allowance for.

Again, on the impossibility of producing combustion by oxydes mixed with sulphur, our authors ask why a flame should not here take place when acid is formed, and oxygen exists? They then lay down certain inferences from the whole, of which our readers have of course already anticipated the substance. They conclude that the metals and sulphur contain something which acids and oxydes have not; that in combustion this is given out; and that the metals regain it, by having their oxydes mixed with sulphur (which has it) and heated. These positions they surrender to criticism, with repeated protestations of their freedom from all theoretical prejudices; and they conclude with two practical applications of their experiments; the one, that we may derive from thence an easy means of detecting metallic parts in sulphurous ores; the other, that we may obtain a cheap mode of forming

sulphuric acid by means of oxydes, the same oxyde serving seven times successively to acidify the sulphur.

It is at first sight obvious, that these learned academicians have greatly overrated the importance of their experiment upon the oxygenation of sulphur, by exposure to heat with metallic oxydes. That an acidification of the sulphur should take place in such circumstances, and a proportionate deoxydation of the metal, is not only nothing wonderful, but is of all facts the most ordinary—it is the common process of reduction. Our authors have omitted to note the degree of heat applied. Possibly this may have been unexpectedly small, and may have excited their surprise, the heat usually required in processes of reduction being considerable. For a thousand facts of the same kind, however, in which both carbonic, nitric, sulphuric, and other acids are formed by metallic oxydes, we refer to the whole body of the French experiments, and to the mass of facts collected by Dr Priestley. This observation of the Italian chemists, therefore, is by no means, as they allege, equally important with that of the Dutch experimentalists.

But they have committed a still more unaccountable, and much less excusable error, in their remarks upon the absence of light and heat in this process, and in their very hasty inferences from hence against the consistency and justness of the new theory. It is, indeed, a strange thing, that two expert chemists, who have apparently studied the principles of that theory, and examined them with all the attention of scepticism and hostility, should so completely misapply them in a simple case. The doctrines of the French school, far from teaching us to expect combustion, that is, extrication of heat and light, in the experiment of these chemists, lead us to look for the very contrary. When sulphur is mixed with an oxyde, and heated, there is no *oxygenous gas* present at all. There is *oxygen*, indeed; and that oxygen uniting with the sulphur, acidifies it, whilst it quits the metal, which thus becomes in part reduced. But, according to the French theory, combustion arises from the mixture of oxygenous gas with certain bodies, which seize upon its base, *i. e.* oxygen, and precipitate its other component parts, *i. e.* the caloric, or matter of light and heat. When the base only is united with the inflammable body, as in the experiment of our authors, the French theory considers combustion as impossible. It is the more remarkable that this mistake should have been committed, because an instance of inflammation in similar circumstances, *viz.* in the mixture of charcoal and sulphur with nitrates and oxymuriates, is always cited as an anomalous fact, nay, insisted upon as an insurmountable objection to the theory of oxygenation. Our authors having found

found an instance wherein the French system is perfectly well supported, unfortunately quote it as a proof of failure. They have truly mistaken the rule for the exception.

We are thus led to deny entirely, the main inference deduced by them from these experiments, that metals and sulphur contain something which oxydes and acids have not; and that the process of reduction restores this something to the oxydes and acids, depriving the reducing bodies of it at the same time. How the experiment of the Dutch chemists should have led the Italian academicians to look for an extrication of light and heat in their experiment, we cannot conceive. *'If the union of sulphur and iron gives out light and heat, therefore the union of sulphur and oxydated iron must produce the same extrication.'* Such seems to have been their fundamental position. But, admitting that the position was a fair one, did they effect such a union? By no means. Instead of uniting sulphur with iron oxyde, they decomposed the oxyde, and united the sulphur with oxygen. They then rashly inferred, that the iron had lost something when formerly oxydated, and reasoned just as if they had united the oxyde with sulphur. It would have been a more legitimate argument to have concluded, that the oxyde wanted something which was present in the iron, if either the combustion had been wanting when a union was effected between the sulphur and the oxyde, or the iron obtained from reducing the oxyde had failed to burn with sulphur.

In spite of this erroneous method of attack, however, the objections which may be stated against the new system, from the discovery of the Dutch chemists, remain in full force. That discovery exhibits an instance of light and heat, precipitated by the union of two bodies, neither of which is understood to contain any oxygen, consequently ignition is not caused by oxydation alone; and luminous and calorific matter may be precipitated from other bodies as well as from oxygenous gas. And to this important position, a very valuable addition is made by the Italian philosophers, if we can at all trust the accuracy of that part of their experiments in which a flame was observed to accompany the combustion of the sulphur and iron. This seems to have struck them as very unaccountable; but it is wonderful that it did not still more forcibly arrest their attention. It is, if true, the most singular discovery that has been made since the promulgation of the antiphlogistic theory. The experiment of the Dutch chemists shewed us a remarkable case of *ignition* without oxygenous gas; but this was not the first instance of the kind. The ignition of the earths and other substances, takes place independent of any oxygenation, and was perfectly well known before the Dutch experiment.

riment; nay, the degree of ignition formerly remarked in asbestos, and utterly unconnected with oxydation, was not exceeded by that of the sulphur and metals uniting. But a combination of ignition with evaporation, in other words, the ignition of a body in the gaseous form, without oxygenous gas, that is, a real flame produced in vacuo, or in airs unfit for supporting flame, was never seen, and hardly conceived to be possible, before these experiments of the Italian academicians. That such a phenomenon, however, might be expected as a modification of the Dutch experiment, always appeared to us extremely obvious. To effect this object, nothing more seemed necessary than the combination of the two bodies in the state of vapour; and as some metals are capable of being easily evaporated, this did not appear very difficult. We accordingly proposed, many years ago, to an experimental society in this city, the following mode of operation as likely to produce flame in vacuo; and we notice it here, that the success of the Italian philosophers may encourage others to execute this project. First, the possibility of uniting zinc with sulphur, which many chemists had denied, was proved by obvious experiments. This only required a moderate degree of heat and compression, and a sufficient granulation of the metal. The sole difficulty seemed to arise from the metal in former trials not having been properly granulated. Then it was proposed, that a balloon of strong glass (such as might be used in the experiments for the formation of water by the combustion of hydrogenous and oxygenous gases) should be provided and connected by a tube with an air pump, or, as occasion required, with a pneumatic apparatus; that it should have two iron retorts inserted, and exactly cemented into it, and placed so that their necks might face each other at the distance of half an inch. Then, one of these being filled with sulphur, and the other with granulated zinc, and the balloon being exhausted, or filled with carbonic acid gas, it was proposed to apply such a heat to the zinc retort as might drive it off in vapours. According to the common process of sublimation, as soon as the vapours ascended in sufficient quantity, a heat applied to the other retort would drive off the sulphur; and, the two streams meeting, it was conjectured that a real flame would be the consequence of their union. We were far from suspecting that iron possessed sufficient volatility to adapt it to this process; but the memoir of the Italian academicians, on this account is at all justified by the accuracy of their experiments, shews that iron itself may be inflamed, or reduced to the state of intensely hot and luminous vapour by union with sulphur. The analogy of other experiments, coupled with theirs, suggests an explanation of this phenomenon, and some farther consequences,

ces, all alike repugnant to the modern theory of combustion. We shall now briefly notice them.

When sulphur and iron are gently heated in contact with each other, they unite with avidity, and fuse together into a solid, brittle, semimetallic mass, being a real sulphuret of iron, and demonstrating, by the perfect polish of which it is susceptible, that the iron must have been in a state of complete fusion. Here, then, is a case of what has been obscurely and unphilosophically called *predisposing affinity*. The addition of sulphur causes one of the most infusible of the metals to melt by a very moderate application of heat. This heat cannot have come from the iron; for a solid body certainly contains less latent caloric than the same body in a state of fusion. Nor can the heat have come from the sulphur; for the fusion of the iron must have *preceded* its union with that body, and must consequently have preceded the extrication of any heat contained in the sulphur. But let us pass over this incidental difficulty;—it is only a new instance of the total inadequacy of our present theory to explain a very large class of phenomena. The fact is, that the exhibition of sulphur increases in an immense proportion the fusibility of iron; and the form of experiment, as old as Macquer, who describes it both in his *Elements* and his *Dictionary*, renders this still more obvious than the process of the Dutch chemists; for if a bar of red-hot iron, not even softened by the fire, be rubbed with a stick of sulphur, it falls into instant and complete fusion.

It is equally well known, that iron, by a great degree of heat, like many other metals, may be made to burn, in the air, with a flame; that is to say, the union of oxygen with iron, occasioned by heating it violently in oxygenous gas, occasions it to evaporate during the process; and the vapour, combining with the gas, burns. The French chemists call this an extrication of light and heat from the oxygenous gas; but the Italian chemists have found the same burning vapour, or true flame, to attend the union of sulphur and iron effected by a moderate degree of heat. It is clear, then, that the light and heat do not come exclusively, if at all, from the oxygenous gas; and the sulphur appears, in this process, to assist the evaporation of the iron, exactly in the same way as it aids the fusion of that metal in the process above alluded to. It is singular, that the ignition and inflammation of this metal should not even take place more easily in oxygenous gas than in sulphur. On the contrary, both those kinds of combustion are effected with much greater ease in sulphur, than in the fluid which the French chemistry denominates the sole fountain of light and heat, and the sole cause of combustion.

The same considerations of the readiness with which sulphur

produces the fusion and evaporation of iron, might, perhaps, suggest an improvement, or, at least, a simplification of the process above described, for causing zinc to inflame without air. It is very likely, that the presence of sulphur may produce the same effect in this as in the other instance, and may, without any apparatus, other than an exhausted phial, cause zinc to unite with it in a state of ignited vapour, provided the mixture be pushed by a heat somewhat greater than is necessary to produce the ordinary union of the two bodies.

Nor are these the only instances in which appearances are directly at variance with the new, and, we must take leave to say, too rashly received system of chemistry. We have alluded to several in a former article, and to a new one in the first part of the present review. More may be found stated, with infinitely greater force, by Professor Robison, in his invaluable annotations to Dr Black's Lectures; and we suspect, that a phenomenon of very ordinary observation, if duly examined, will be found to present an additional fact to the increasing body of exceptions; we mean, the light and heat given out by quicklime in the process of slaking. The presence of water is the only circumstance that prevents us from at once denominating this a case of flame without oxygenous gas. The removal of that circumstance, and a slight variation of the process will, in all likelihood, add a new and formidable objection to the antiphlogistic doctrines, as combined and dogmatically systematized in the Parisian schools. Against the daily augmenting force of this hostile body, we cannot expect the citadel long to hold out, without some alterations in its interior arrangement, which may new-model its works, develop new resources, and either disarm its adversaries by fair combat, or (what is more probable) appease them by a fair compromise. From one mode of attack, however, the antiphlogistians have nothing to dread; we mean, that which consists in seeking aid from the worn-out and feeble adherents of Stahl. By this imprudent alliance, the opposers of the French school only fortify their enemies more securely; and we have therefore judged it our duty to expose the fallacy of such a measure, in the present instance, in which the Italian academicians have adopted it. In plain terms, the calm and impartial friend of science will desire to see the dogmatism of the new theory modified, its systematizing phrenzy checked, and its obvious mistakes corrected, without any recurrence to the errors and ignorance of the old: he will find it easy to appreciate the merits of the system which Black and Cavendish, Lavoisier and Berthollet have erected, notwithstanding the fallacies which their followers have engrafted upon that immortal work; and, acknowledging that, even with all those imperfections, it

it approaches infinitely nearer to the truth than the theory which it overthrew, he will feel that he only desires its weaker parts to be exposed for the sake of its transcendent excellences.

Although we have devoted this article to the chemical papers contained in this volume now before us, yet there is one of a medical, or rather of a physiological nature, so very important, that we must add an account of its contents here, as the other pieces belonging to the same class do not merit a separate head. We allude to the paper entitled, '*Observations, dissections, and experiments on the bite of enraged animals,*' by M. Rossi. It contains a description of four curious cases, and a variety of observations, somewhat declamatory, which we shall take leave to pass over. The cases deserve much consideration; and, in hopes that some of our readers may accept of M. Rossi's invitation to collect all the facts relative to hydrophobia, and diseases connected with it, so as to form a mass of materials for a right theory of cure, we willingly contribute our share, and give his observations as much publicity as we can.

A young man was bit by a cat in the leg; he suffered acute pain for some time; this ceased, and he became well. Every method of preventive for hydrophobia was used, cautery, caustic alkalis, blisters, &c.—all in vain: the 49th day the symptoms appeared, and the patient died with his teeth fixed in a piece of iron which he had seized hold of. It is remarkable, that the cat had only been rendered furious by being confined in a room, and tormented. On dissecting it, the brain and cerebellum were found to be inflamed, with other symptoms of disease; and similar appearances were found on dissecting the patient.

In the next case, nothing remarkable occurs, except that the ear of the patient was affected every night at the very hour at which he had been bit, during the fifty days which elapsed from the bite, to the commencement of the disease. The bite was in the cheek; and no account is given of any symptoms, by which this case can be distinguished from the ordinary forms of hydrophobia.

The third case, is a complete confirmation of the principal fact observable in the first. A cowfeeder having remarked a cat often coming to steal the milk in his dairy, lay in wait for it, and attacked it with a hatchet. There was a considerable contest, till at last the cat, unable to avoid an approaching blow, leapt at the man and seized his chin, whence there was no possibility of detaching it, but by cutting off its head. The patient was carried to the hospital, and all the preventives of hydrophobia, as cautery, purging, bleeding, and mercurial salivation applied. On the 20th day, the fatal symptoms made their appearance: he ex-

perienced much difficulty in swallowing water, but this he overcame with great fortitude;—the difficulty increased, and the wound became bad;—the patient grew furious—endeavoured to bite every one that came near him—was bound with chains, and immediately broke them in pieces—leapt from his bed—ran up and down the hospital, attempting to bite all he met—till, reaching the outer door in order to escape, he was seized with a shivering, and fell down dead. The dissection of his body offered appearances similar to the others; the ramifications of nerves on the pharynx were, as usual, very tender and easily broken, and the pharynx itself livid.

The last case is that of a man bit by a '*chat enragé*,' but in what way '*enragé*,' we are left to guess from the general tenor of this paper. He appears to have suffered little pain, though the bite was deep, and the suppurations copious. He was treated as usual, and seemed at length quite cured. For a month after this he was in perfect good health, then he became weak and feverish, and in fifteen days '*il mourut de consommation*.' On dissection, the appearances corresponded with those of the above cases, though no unequivocal symptom of hydrophobia had manifested itself during life.

Our author concludes in a curious kind of style. He says he wrote to the celebrated professor, Dr Ginlio, exhorting him to turn his thoughts towards the nature of hydrophobia, and to contrive some new method of treatment, which might be made public after its utility should be proved. He adds, that Dr Ginlio has thought, and has contrived a new method, as he was desired; that they both agree about its excellence, and that it is now to be given to the academy. We conceive that our author could not delay a moment to communicate such a treasure; consequently, he must mean to describe it in the following terms, which are added immediately to the foregoing introduction.

'We propose continually to make, repeat, and vary in a thousand ways, our experiments on all the cases of hydrophobia which occur; and we shall not fail to publish our results without delay, inviting all the learned to assist us with their observations, and thereby to alleviate the miseries,' &c. &c.—'The above observations shew, that the gastric juice is almost always abundant, green and acid, in hydrophobia—Let our attention be directed towards this fluid.' p. 265. Part I.

Abstracting from the singular style of the conclusion, and, in general, of the author's remarks, this paper affords important information. It appears that certain animals, on being violently affected by fear or rage, become subject to some morbid influence, which deranges their system, and gives them the dreadful power of communicating the disease by their bite. It is singular that
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the domestic animal which, of all others, is the most subject to the wanton cruelty of man, should thus possess the most formidable of all means of revenge, and become suddenly endued with the fatal weapon, at the very moment when the injury has been inflicted. Those who are fond of seeing final causes in every arrangement of the universe, and whose imprudent zeal has, more than all the scepticism of all the philosophers, brought into disrepute the most sublime of human speculations, will eagerly seize upon this fact as an illustration of the design, constantly observable in the works of nature. But nothing can be more thoughtless than such an argument; for, if design is here exhibited, it is unaccompanied by benevolence. The weapon with which those animals are endued, is useless for defence, and serves only for revenge; it is used indiscriminately against the assailant, and the indifferent spectator; and finally, it is as certainly fatal to the possessor, as to those against whom it is employed. The whole fact must, therefore, be classed amongst those inscrutable dispensations of Providence, from which we are not permitted to draw any inference, except that of our own profound ignorance.

It is of more importance to remark (and for this purpose we have introduced the present notice), that the dreadful lesson taught by the cases here stated, should be carefully kept in mind by all who are, from their tempers or their habits of life, much exposed to the temptation or the necessity of using harsh methods with the most common of our domestic animals.

ART. IX. *Sermons.* By Sir Henry Moncreiff-Wellwood, Bart. D. D. & F. R. S. Edinburgh, one of the Ministers of St Cuthberts, Edinburgh, and senior Chaplain in Ordinary in Scotland to His Royal Highness the Prince of Wales. Edinburgh, 1805. pp. 480.

It would be improper, perhaps, to pass an unqualified censure on any particular style of pulpit eloquence. 'Whatever is best administered is best,' is a maxim at least as applicable to preaching as to government. Good sense and good morality are indispensable requisites; and if the preacher give us these, he may be allowed, in other respects, to follow the dictates of his peculiar genius or fancy. The animated oration—the calm exposition of moral duties—the critical illustration of scripture doctrine—and the serious exhortation to a holy life—are all adapted to the pulpit, and are all good in their kind. Attempts at wit and vivacity, indeed, might probably be proscribed, without any great disadvantage. A preacher is contemptible, who
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does not seem to believe what he says; and we can scarcely think him much in earnest, who seeks occasion to be facetious, when 'he reasons of righteousness, temperance, and judgment to come.' There are preachers, however, of this peculiar vein; and there are likewise hearers on whom an epigrammatic point may have more effect, than 'proofs of holy writ.' Whether, therefore, under an enlarged view of St Paul's maxim, 'to become all things to all men,' even the *witty* style of preaching may not be occasionally tolerated, we will not undertake to determine. It is, however, clearly the worst style; and since we have discovered the worst, perhaps we may likewise be able to point out the best.

The admirers of eloquence and fine writing will be apt in general to declare for the highly oratorical sermon, a species of composition of which we have few examples in this country; and accordingly, the great French preachers are commonly referred to, as those who have come nearest perfection in their art. We are however induced to suspect, that oratory, considered as an art, can have no very powerful effect in the pulpit. *Artis est celare artem*, is an indispensable rule of rhetoric; and no eloquence can ever be impressive which appears laboured and artificial. Now, an orator of genius, when he undertakes to delineate those pathetic circumstances in the fortunes or conduct of men, with which every human heart is ready to sympathize, will easily be able to rouse the feelings of his audience; and all the exaggerations and amplifications which he employs for this purpose will commonly escape the notice of those who have become interested and warm in the description. But the case is materially different with those representations of the future destinies of men, which afford the chief scope for pulpit eloquence. As these things are not the objects of our experience, or of our ordinary consideration, there seems to be a species of incredulity and indifference with respect to them in the human mind, which is only to be overcome by powerful reasoning and serious exhortation, and is more likely to be increased than abated by the trick and the glitter of rhetoric. Instead of being ready to overlook the art of the orator, we are in this instance rather on the watch to discover it; and if once he appears to be employing artifice, his influence with us is at an end. He may continue to delight us as a poet with his imagination and spirit; but we shall pay little regard to him as a teacher of important truth. Compare the sermons of Massillon with the orations of Demosthenes or Cicero. The Greek and Roman orators, no doubt, had often bad causes to support, and excited the sympathy of their audience, by counterfeiting emotions which they did not seriously feel. The French preacher, on the other hand, we must

must presume, was always in earnest, and firmly believed the truths which he delivered. But, by adopting the style of a rhetorician, he seems at all times to be acting a part; while those illustrious antients appear quite simple, even when they are employing their utmost artifice and skill. The plain statement of the preacher's sentiments on the subjects which he is treating, expressing honestly what he thinks and feels, without any softening or exaggerating, appears to us to be the best style of preaching. This is compatible with many very fine strokes of occasional eloquence; but, in general, the style will rather be firm and steady, or, at the most, warm and earnest, than highly coloured and impassioned; and, after all that may be said of his tediousness and slovenly composition, perhaps Tillotson is still perhaps the justest model for the eloquence of the pulpit.

The volume before us is a very respectable example of this manner. The sermons of Sir Henry Moncreiff are evidently the productions of a sensible and serious man, who trusts more to the weight and importance of his matter, than to the manner in which it may be set off and adorned. He never aims at astonishing his reader, nor does he possess any peculiar felicity or polish of expression; but he is always instructive, commonly forcible, and his language has at least the merit of perspicuity. Without entering into the merits of each sermon in particular, it will be sufficient merely to mention the subjects, and to quote a specimen. The contents of this volume are as follows: 1. On the unequal allotments of Providence—2. On the minute improvement of the blessings of Providence—3. On self-denial—4. On the form of godliness—5. On Christian faith and morality—6. On the result of good and of bad affections—7. On the inheritance of a good man's children—8. On the doctrine of grace—9. On the conduct of Providence to good men—10. On the general spirit and effects of Christianity—11. On the universal promulgation of Christianity—12. The same subject continued—13. Prospects of futurity—14. On the cultivation of personal religion. From the sixth sermon, 'On the result of good and bad affections,' we select the following striking reflections on the influence of parental love.

'If we have been the children of worthy and affectionate parents, who are now no more, the remembrance of their love can never cease to be interesting. We have pleasure in believing that we have derived from them our best qualities, or that we can refer to them our success in life. We look back with a melancholy satisfaction on their anxieties for us when we had no care of ourselves; on their solicitude to protect or to warn us; on the affection with which they supplied our want of experience; on the looks of kindness with which they gratified us; on the instruction

instruction and the discipline by which they endeavoured to form us for the path of life ; on the fervent prayers by which they purified them ; on the earnestness with which they spake to us of duties and of godliness, when they admonished us of the evils to come, and strove to fortify or instruct us by " the labour of love ; " on the sanguine hopes which they delighted to indulge, from the progress of our talents, or from our good conduct or success in the world, or from our duty and affection to them, or from our ardour in good works, or from our fidelity to the God of our fathers.

" These are the most useful recollections of the human mind. It is the law of our nature, that the parents go down to the grave, and leave their children behind them. But if we can remember our parents with those happy impressions of their affection and fidelity, we have that from them which will interest and admonish us as long as we live. If we have been faithful to the influence of parental love, it will never lose its hold of us.

" Why should not each of us examine himself fairly on the subject ?

" Has my conduct been at all worthy of the faithful discipline of my parents ; or of their earnest admonitions to guide and to bless my youth ; or of the last impressive prayer which came from " the love which perished " in the grave ?

" Do I feel the influence still of parental solicitude, to restrain me in the hour of temptation ; or to revive on my conscience my early impressions of godliness and of good works ? Or, am I conscious that there is a motive to whatever is pure or estimable, ever returning to my thoughts, from the sense of my obligation to justify the hopes, and to be worthy of the examples, which are now no more ?

" It is consolatory, indeed, to be able to answer these questions to the satisfaction of our own minds. If we give thanks to Heaven that those " whole love has perished " died in faith and patience, and " commanded their children to keep the way of the Lord," we must feel that the impressions, to which these questions relate, are rivetted on our hearts ; and that for the influence which they preserve on our conduct, we shall one day answer to God.

" Ah ! what shall those men do, who know that they deliberately trample on the memorials of parents who loved them in the fear of God ? The love which lost its influence before it could avail them, and of which they must feel themselves to have been unworthy, though it perished in the grave, shall rise up at " the judgement of the great day " to bear witness against them, " except they repent." The thought is deep and awful. If they have any tenderness of mind, and God hath not forsaken them, it will reach the bottom of their hearts.

" But it is impossible not to feel how much the recollection of parental love, which recalls us to prayer or to penitence, ought to suggest to other men with regard to the love which has not yet perished. Their parents admonish them still, and pray for them. Surely this is the time to consider how precious the impressions ought to be of God and of duties,

ties, which are produced by their earnest and affectionate endeavours to be faithful to God and to them. "My son, said Solomon, keep thy father's commandment, and forsake not the law of thy mother. Bind them continually upon thine heart, and tie them about thy neck. When thou goest, it shall lead thee; when thou sleepest, it shall keep thee: and when thou awakest, it shall talk with thee." p. 170—174.

From the 'contents' our readers will perceive, that several of these sermons are on subjects entirely scriptural; and, indeed, the motives to virtue which the reverend author lays down, are most commonly drawn from the peculiar and distinguishing doctrines of Christianity. In the sermon on 'Christian faith and morality,' he, indeed, plainly states it as his opinion, that there is no way of enforcing Christian morals with effect, without deriving them from the sources of Christian faith. This is a point which seems to be viewed in very different lights; and although we are not perhaps very competent judges of the question, we shall venture to make a very few observations on it.

We think it then very plain, that a preacher who studiously keeps Christianity in the back ground as something which incumbers him, and of which he would be as well pleased to get rid, is by no means doing his duty. Whether that religion is true or false, is another question; but, surely, no one who thinks it true ought to be ashamed of it, and no one who thinks it false ought to preach under its authority. The attempt then to preach morals as something separate from Christianity, is highly indecent, and has always a paltry and pitiful effect. Upon this subject, nothing can be more strongly, or, indeed, happily expressed, than the following very admirable passage from the sermon just referred to.

'I beseech you to consider,

'(2.) What the morality is, which is industriously separated from the doctrines of Christianity, or is inculcated independent of its relation to them.

'When I say that morality is separated from Christianity, I do not mean to affirm that this is always directly done. It happens more frequently, that the doctrines of the gospel are passed over in silence, or are treated as subjects which a very wise or enlightened man does not think it necessary minutely to consider; while moral duties are stated, with few exceptions, as if they had no reference to them.

'Is the morality which is thus inculcated, the pure, the universal, the watchful, or the uniform morality represented in the gospel? On the contrary, it is a morality which has seldom any relation to God, or to the duties which we owe to him; a morality which applies chiefly or entirely, to our present interests; the morality which the fashion, or the general manners of the world require; the morality which derives its chief motives from present situations, and from present events;
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the morality of easy, pliant, and conciliating manners, which neither bears hard on the vices, nor goes deep into the consciences of mankind; the morality by which men learn to declaim against religious zeal, and against every thing which has the aspect either of scrupulous holiness or of earnest religion, but which can teach them to look, without any dissatisfaction or murmur, on the dissipations of the world, on the profane, and on the sensual, and on the oppressors, and on the hardened.

Men of sound understanding ought to be able to determine for themselves, whether this is the morality of the gospel which is inculcated with scarcely any relation to it, and from every motive rather than the motives of religion; in which the lessons of moral duty, separated from the language of Christianity, are every day brought nearer to the maxims and to the manners of the world; and from which men learn, or are taught to believe, that, wretched as their progress is in moral duties, they must derive from it their only hope of salvation.

The unbeliever, and the false professor of Christianity, insensibly adopt the same language. Under the pretence of setting morality and Christianity at variance, they unite their endeavours to sap the foundations of both. They first banish from their thoughts the substance or the peculiar tenets of the gospel, as a metaphysical system which may well be spared. When they have effected this, their work is almost done: for the morality which they profess to retain, is easily reconciled to the vices of the world; and though it were pure, soon becomes a dead letter, separated from the principles or motives which can alone support it.

It is impossible not to remark, besides, that the supple and accommodating morality, which bends to every fashion, and accords with every new opinion; which startles at every approach of zeal for religion, but which fears nothing from the lips of ungodliness or of infidelity; is, in its most favourable aspect, at least far removed from the holiness of heart and life, by which the sound believers of the gospel are represented, in the New Testament, as becoming 'the temple of God,' and as 'having the spirit of God dwelling in them.' p. 147.—150.

But while mere morality, or natural religion, are out of place in the pulpit, when they seem to be opposed to revelation, we cannot help thinking, that a preacher must narrow his sphere of utility very needlessly, if he thinks it his duty, on all occasions, to introduce the peculiar views and motives which Christianity suggests. If he seriously believes that religion, he certainly never will say any thing that can have the smallest tendency to obstruct its influence: but he may not think it convenient, or he may not have the inclination, to make it the sole and exclusive foundation of all his counsels and exhortations. What is called the *evangelical* style of preaching, appears to us an opposite extreme from the purely *moral*; and, like all other extremes, it is bad. There is surely a difference between the present times, and those in which Christianity

Christianity was at first preached by the apostles. The seed has been sown, and during the course of eighteen centuries has in one way or other been producing fruit. The work need not be done over again from the beginning; and even if a preacher thought it necessary once more to lay the foundation, yet it would not be in his power. The preaching of the Apostles themselves, would have appeared bold and extravagant, if they had not been able to accompany their words with 'demonstration of the spirit and of power,' if they had not appealed to miracles and to the clear fulfilment of prophecy. Preachers now must take the times as they find them; and as they have not those supernatural evidences, they must adopt a lower and more moderate tone. They must not disjoin themselves so entirely from the common business and common reasonings of the world, or represent Christianity as a subject which is to be judged of, or inculcated, upon principles fundamentally different from those which regulate our opinion and belief upon matters of smaller importance. In the preachers of the 17th century, who are indisputably believers in revelation, and who very frequently refer to its distinguishing tenets, we may yet perceive an ease and freedom, which demonstrate that their faith did not at all shackle their minds, or prevent them from resorting with the utmost readiness to every source of morals or reason. Dr Barrow will in one sentence quote an Apostle, in the next a Father, and in a third Aristotle; and he will then pour out, with equal alacrity, the rich stream of his own full and overflowing eloquence. The evangelical preachers of the present day, seem to be in horrors, if they happen to push their foot beyond the magic circle of Scripture; by which means they both renounce the assistance which they may receive from their general learning and knowledge, and give a disagreeable impression of the sacred writings, as if they were a repository of strange and peculiar doctrines with which the common sense and feelings of men can never be permitted to mingle. There is something extremely disagreeable to the minds, we do not say of men tinctured with infidelity, but of the sensible and reflecting part of Christians, to be kept in the trammels of mystery, and not to have their religion amalgamated in some measure with their customary and daily sentiments; to have one set of thoughts and phrases for Sunday, and another for all the rest of the week. If we have any objection to the Sermons before us, it is, that the reverend author is somewhat too constant in enforcing scripture doctrine; although we state this opinion with hesitation, when we consider his great experience as a clergyman, and the impression of cool reason and practical good sense which is stamp'd upon the whole volume. We would rather, from this peculiarity, take occasion to suggest

to such of our readers as have adopted the common philosophical principles of the day, that a circumstance of this kind in the sermons of a man whose understanding and abilities are unquestionable, is a point which, on their principles, they will find no little difficulty in accounting for. When we see such a man enforcing with great seriousness those doctrines of revelation which, in the eyes of the world in general, and especially in those of sceptics, have most the appearance of "foolishness," what is the conclusion? The charge of hypocrisy is highly illiberal, and the supposition that, on these subjects, the author's understanding has been warped by his peculiar profession, to say the least of it, is somewhat presumptuous. Is it not more reasonable to suspect that there must be solidity in the *foundation*, when we find a very wise man so carefully employed about the *superstructure*?

Upon the whole, this volume, we conceive, will afford the most solid satisfaction to the serious reader, for whose use it is principally intended, and must command the respect of those who are not habitually occupied with the subjects to which it relates. They will never be disturbed with the author's admiration of himself, or his misconception of the subject; nor will their impatience be excited by any thing puerile, declamatory, verbose, or inaccurate. They will find every where indications of a vigorous and independent understanding; and though they may not always be gratified with flights of fancy, or graces of composition, they can scarcely fail to be attracted by the unaffected expression of goodness and sincerity which runs through the whole publication.

ART. X. *De l'Usage du Numeraire dans un grand Etat.*

Par le Cit. Toulangeon.

(*From the last Volume of the Memoires de la Classe des Sciences Morales et Politiques de l'Institut National.*)

THIS is one of the many productions that have lately appeared in France, as well as in England, from the pens of certain political economists, who, without genius to create new systems, or acuteness to perceive distinctly the errors of the old, are sufficiently fond of singularity, to reject both the great theories which formerly divided the opinions of mankind on the subject of national wealth. The first step which these authors set out with, is a contemptuous disavowal of the doctrine, that money constitutes

constitutes the riches of a people ; but in a few pages we generally find how imperfectly their minds have been cured of this vulgar but most natural prejudice ; and they no sooner come to lay down their own theories, than we perceive, that, to the fundamental errors of the mercantile system, they have added nothing but mistakes from which it was free; and contradictions which could only arise from not comprehending it.

M. Toulangeon is too much above ancient prejudice to believe that ' the richest nation is that which possesses the greatest quantity of circulating medium ; ' yet he has not proceeded far in the developement of his own doctrines, before we discover him uniformly substituting money for capital, and reasoning upon the employment and distribution of stock under the appellation of '*numeraire.*' A similar desire to shake off the prepossession in favour of specie, which constitutes the chief error of the exploded doctrine, induces him to seek for a substitute, in credit ; and then his theory only differs from the old one, in ascribing to paper money all the powers which were formerly attributed to the precious metals. He does not, like the more vulgar class of politicians, declaim against trusting the prosperity of a nation to the flimsy resources of credit ; but he goes further than Mr Pinto himself in his notions of the powers of credit, and argues as if credit could create capital, rather than draw unemployed stock into use. His theory is delivered with more than the ordinary presumption of a person who mistakes his ignorance for discovery ; and though he concludes his performance with a modest prediction that it will ' find a place in the portfolio of projects consigned to oblivion,' yet the whole tenor of the paper, and especially of the passages which stand next to this prophecy, demonstrate that he belongs to the small number who do not believe it will be fulfilled. The tract indeed abounds with well-turned and delicate compliments to the Citizen Toulangeon, who seems verily to think that he has removed all mystery from the difficult subject of circulation and credit ; that by a most simple theory he has explained in what manner money may enrich a people ; and that, by a happy deduction from his fundamental proposition, he has pointed out the means of moral, economical, and financial improvement to his country. A corollary from the whole encloses, rather than developes, a singular scheme of public credit, which is to prove a substitute for national debts ; and we think our readers can scarcely peruse the analysis of these discoveries, without recognizing some portion of the same genius that once inspired the famous M. Herrenschwand, to which the world owes his memorable '*Adresse aux vrais Hommes de Bien.*'

Money, according to our author, must possess two qualities, in

order to constitute the wealth of a state—a rapid circulation, and proper distribution. The good effects of quick circulation are too obvious to require proof—it enables a single piece to perform the office of many. Let us consider then what is meant by a *proper distribution*. He pursues a long case in figures for the sake of illustrating this point; but the substance of the statement is, that if there are two nations equally rich and populous, and if the same quantity of money is so distributed, that in both a small class shall have a larger share of it than the rest, but that the disproportion shall be much greater in the one community than in the other, then, in the former, the bulk of the people must labour with little or no assistance but what they derive from their own hands, while, in the latter, they have the aid of a considerable portion of the great instrument of commerce. On this ground, our author proceeds to construct a comparison between the happiness of the two communities; and to show that where almost all the money is in the hands of the rich, the poor must labour for them at competition prices in order to live, must devote their whole lives to drudgery without having time to think, and must see their condition growing worse and worse as their necessities augment. But where the poor have a just proportion of the circulating medium, they labour to enjoy as well as to live; they have time to reflect and improve their minds; and their fortune is continually augmenting, while their yearly overplus is anew employed with profit. At this period of his reasoning, our author stops to remind us, that he has been all along speaking of money, and not of wealth. But this will not do. If he is resolved to describe the effects of an unequal distribution of wealth, under the name of the unequal distribution of money, we cannot allow him to force his theory upon us in the form of a definition; and if he will use *money* in the sense of *wealth*, he must find some other word to express what is commonly meant by money. It is however obvious, that there is much inaccuracy even in his enumeration of the effects of unequal distribution, whether we permit him to call it of money or of wealth in general. How can the rich make the poor work uniformly at a competition price of labour, when their own superfluity of wealth is occasioning a competition of consumers, and is indeed the very origin of high wages? The idea of such distributions is absurd. The engine may be adjusted at first in whatever manner you please; but its first movement must tend to derange the preestablished proportions, unless the rich are to retain their wealth unconsumed, and the poor to work for nothing.

To his supposition of the money in the two states being divided with different degrees of inequality, our author proceeds to add another; that, in the country where the small number possesses the greatest

greatest proportion of the circulating medium, the real wealth (we presume he means the other parts of wealth) is equally diffused over the whole community; while, in the country where the money is distributed with much less inequality, the real wealth is confined to the class possessing the greater proportional share of the circulating medium. It will follow, according to M. Toulougeon, that, in the state where the distribution of the money is most disproportionate, the class which possesses the greater share will feel money to constitute their whole force, will draw the rest to them, and will rapidly depress the other classes more and more by this means. But, in the country where the money is less unequally distributed, the class which possesses the greatest share, possessing also most real wealth, will perceive that real wealth is only useful to them when employed; whereas money, being the representative of all things, is valuable in itself—it gives them a command over every other commodity. They will therefore render their real wealth as like their circulating medium as possible, by means of credit, which will enable them, as it were, to coin every part of their possessions, to form a paper money that may be received, from the confidence reposed in their wealth and integrity, and may represent both their specie and their goods. Thus the rich will augment their own stock by the amount of the paper which they circulate; the goods, on the credit of which it is emitted, remain; the specie becomes the medium of exchange in the retail trade, and consequently is transferred to the hands of the poor; the community benefits by the whole amount of the paper money on the one hand, for this is clear gain, not accompanied with any loss of goods; and by the accommodation given to the poor on the other, for they are excluded from a share in the paper circulation, the nature of which confines it to wholesale dealings, and they receive the specie itself. Hence our author deduces the main principle of his strange theory, that the public good requires such an arrangement as may throw the specie of the country into the hands of the people, while the paper money, that is, confidence and credit, constitute the circulating medium of the rich.

Nor are these direct benefits the only ones which arise from a tolerably equal distribution of the specie. The effects of that confidence to which such an arrangement gives rise, are of themselves highly important. Confidence promotes honesty, knowledge, order—and lays the foundation of all the domestic virtues. The distribution of comforts among the inferior orders, our author observes, is the best security for their virtues and regular conduct; a remark to which we cheerfully subscribe, and which we willingly quote as in reality the only truth we have met with through the whole course of the tract. It is introduced with

some observations in M. Toulougeon's own inimitable manner, upon the beauty of seeing wealth equally divided; of a community in which '*on ne voit pas la maigreur à côté de l'engluure, et l'embonpoint se remarque partout.*'

In a financial point of view, equal advantages result from leaving the money in the hands of the people: For, is it not plain, says our author, that a hundred proprietors of a thousand a year each, can more easily afford to contribute two hundred, than a single proprietor of a hundred thousand can to contribute twenty thousand? As there is no answering this, he only remarks, in an easy way, that the reason of the difference is the greater profit which the industry of the small proprietors (i. e. annuitants) derives from their revenues; thereby curiously confounding income with capital.

M. Toulougeon now sets no bounds to his eulogies upon credit. It is the money of great towns, coined by a single dash from the pen of a banker or a merchant; it should be kept sacred to grand affairs, while cash ought to be scattered among the petty dealers and day-labourers. It multiplies great capitals by representing them; it multiplies money also, which it represents as money represents goods. And all this, and a vast deal more of the same kind, is delivered with as much confidence, and as much affectation of the precise language of demonstration, as if the author had really annexed some meaning to it.

But the confidence with which he asserts, as facts, conclusions which he draws from his theory, and which are directly the reverse of the truth, deserves some notice. Credit, according to him, depending entirely upon the confidence reposed in the solvency and character of private individuals, banks can only be established on the same basis; and all such schemes of banking as derive their origin and support from government, or from the union of many individuals, with a joint stock, must want credit. No confidence, says he, can ever be reposed in the government, which is above all law; it can, therefore, have no credit. No confidence can be given to ideal bodies or corporations, unless the members are each liable for the whole engagements of the company. It is to single persons, therefore, and not to bodies, that an individual always looks for his security. To read such extravagant assertions, one would think that the author's knowledge extended, literally, no farther than the pages of his own theory; that he had never heard of any one public banking company; that he was utterly ignorant of the credit given to government paper in almost every part of Europe. The prejudice in favour of a system seems to resemble the instinctive affection of the lower animals for their offspring; the more deformed and sickly the production is, the more obstinately

nately do the parents close their eyes upon its defects, persisting in the belief, that all around is in harmony and concord with the puny object of their care, which, in every limb perhaps, forms an exception to the rest of the creation. Had Citizen Toulangeon conceived an opinion, that walking upon the head is preferable to the other mode, and, in support of this idea, appealed to the practice of all able-bodied persons and quick walkers, he would scarcely have produced more than a fair parallel to his doctrine of credit, as applied to the history of banking companies and government paper.

The next effect of a system which is to throw the specie into the hands of the lower people (uniformly confounded by our author with the retail traders, as if the rich did not participate still more than the poor in the benefits of this trade), is the prevention of hoarding. As soon as a paper money is established, which can take the place of cash in great transactions, all hoards of the precious metals will be laid open, and the only cause of the present high rate of interest in France will be removed. M. Toulangeon, it may be observed, is quite ignorant of the nature of interest, which he denominates the price of money, and never once suspects to be the rent paid for all sorts of stock. But one kind of argument used on this head is extremely amusing, and, we will venture to say, of as universal application as any rule in logic. In order to shew that the high price of money in France is no proof of its scarcity (always conceiving high rate of interest, and high price of money to be synonymous), he says the argument may be retorted, and made to cut the other way; for, if money is borrowed at a high price, it is clear that there are people who can afford to pay that price, and who have, therefore, plenty of money. Thus, the higher the price of any commodity is, the greater its plenty, since every high sale infers a high purchase.

And here it is necessary that we should let the author speak for himself. The last benefit to be derived from his distribution of specie is of so extraordinary a nature, and delivered in such a strange language, that no abstract could do it justice.

‘ On a beau abuser d’une vérité, rien ne peut faire qu’elle cesse d’être une vérité; comme Dieu, la vérité n’a ni commencement ni fin; et comme la lumière du soleil, elle peut être voilée mais non obscurcie: elle reste et reparoit, telle qu’elle fût d’abord. Parce qu’on a horriblement abusé du mot *peuple* et du mot *pouvoir*, il n’en restera pas moins éternellement vrai que le peuple est la portion la plus utile ou plutôt la plus nécessaire à la chose publique, et que le pouvoir qui la régit tendra toujours à la maîtriser: or la richesse est un pouvoir le plus fort de tous, parce qu’en changeant de main, il ne change pas de nature; l’esprit de corps s’y conserve et s’y remplace: c’est le bataillon que l’on appeloit

des *Immortels*, parce que les places vides n'y-restorent jamais vacantes. L'or de toutes les matieres la plus dense, n'a qu'un contrepoids, c'est lui-même ; si le peuple n'en possède pas une grande partie, il sera bientôt asservi, parce qu'il n'y aura plus d'équilibre entre l'or qui attaque et l'or qui se defend. Le maître le plus imperieux, c'est le besoin, et les besoins du peuple sont toujours des besoins de premiere necessité qui commandent plus imperieusement. Si peuple ne peut connoître l'usage d'aucune autre richesse que de l'argent monnoyé. Les pierreries, les productions de l'Inde, les meubles de prix, les chef-d'œuvres de l'art, les effets au porteur, tout cela n'est pas à la portée du peuple ; sa richesse doit courir les rnes, et celle-là, en bonne police, doit lui être réservée : celle-là defend de la domination des autres, et lui ôte l'envie d'attaquer leur inevitable prééminence. L'indigence affaiblie sent tout le poids de ses fers ; elle en est accablée, parce qu'elle n'a pas la force de les porter, jusqu'à ce que l'indignation lui donne un moment la force de les soulever ; mais cette crise n'est qu'un delire d'accès, funeste pour elle-même. Les souffrances du besoin ont fait plus de revolutions politiques que les opinions. L'état actuel de la France est précisément tel qu'on peut le souhaiter, &c.

Is it too much to denominate this the most incoherent piece of writing which has appeared in political science? We are far from insinuating any resemblance between the two authors ; but it is curious to observe, that the grossest absurdity of this whole passage is founded upon Lord Lauderdale's famous mistake of scarcity for value. Citizen Toulongeon conceives the people incapable of using any other riches than specie ; and clearly shews that he holds riches only to consist in objects which are scarce, such as colonial produce, bills, fine furniture, and the like ; just as Lord Lauderdale excludes from his list of valuable articles, all that are indefinitely abundant.

It is now time, however, that we should mention the great plan by which a system of solid finance is to be laid, and the various advantages secured, which result from the specie circulating among the poorer classes of the people. The unexampled obscurity with which this scheme is described, must be our excuse if we have not been able to seize a very distinct view of all its parts. The funding system, according to Citizen Toulongeon ought to be abandoned, as being an expedient rather than a resource, and as imposing the necessity of finding means to pay what has been previously borrowed during the emergency of affairs. But the difficulty is to find a substitute for this policy ; and he recommends, that, instead of always borrowing, a great and wealthy state should so arrange matters as always to lend. In his way of viewing the subject, nothing can be more easy. The nation has only to lend its domains to such persons as can prove that their private fortunes are equal in value to the capital which they obtain from
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the public, and can thus give good security for the payment of interest or rent, as well as for the payment of the value of the principal itself, when the exigencies of the state may demand its restoration. Thus, if a war breaks out, the nation has occasion for a considerable proportion of the whole capital, and demands an equal share from each debtor, or draws a bill upon him. This every one will receive, from knowing that all the public debtors have property to at least double the amount of the greatest sum for which the government can issue drafts upon them. The expences of a war do not require very great sums immediately on its breaking out; the debtors will, therefore, have warning to raise the money required of them, even should payment of the bills be demanded. But our author holds it to be clear, that the public confidence in the goodness of those bills, will circulate them for so long a period, that, before any payments can be demanded, the operations of sinking funds, &c. will have enabled government to retire all the paper. Such is the substance of the scheme in so far as we have been lucky enough to unravel it; and its fundamental postulate—the assumption, that government sets out with a clear list and a capital in national property, equal to the whole expences of the most difficult emergency, is a sufficient excuse for our passing over the details without any further remark.

It is by the wonderful paper system which such a plan must create, that our author expects the great object will be accomplished, of banishing specie money from the dealings of the wealthy classes, and confining it to the hands of the common people. Government will only have to admit paper money in the payment of the revenue, both in delivery of the ultimate produce by the general tax-gatherers, and in the first payments made by the partial tax-gatherers, and then all will arrange itself as the theory of citizen Toulougeon requires; the paper money will never reach the small transactions of the common people; they will be obliged to have specie, or to want money altogether; and they will be enabled to retain what they get; because, only paying it as tax-money to persons who can pay in paper to the central bureaux, they will immediately receive it again in circulation.

The thoughtlessness of all the parts of this reasoning is, we believe, entirely without parallel in the most unthinking political pamphlet that ever called itself a plan. Assuredly, the author has complied in all strictness with the principle which he lays down for the science of finance—'*Qu'elle ne doit pas s'élever plus haut que celle des quatre règles de Parithmetique.*' He has made sure of not going beyond those rules, by taking care not to reach them.

Wretched as the texture of this memoir undoubtedly is, it may not be altogether uninteresting to contemplate its errors, when we consider the place in which it appears. The thing which we have been looking at, is literally the only production on the science of political economy, which the National Institute has deemed worthy of a place in its moral and political volumes, for the last five years, if we except another tract, in the same style, and from the hand of the same master. To find such a performance standing single among the labours of that body which has succeeded to the academies of France, is indeed melancholy; and evinces, either that the influence notoriously exerted by the government towards the encouragement of exploded errors in political economy, has extended to the first literary body on the continent, or that there do not exist within the circle of the Institute, the talents and the lights sufficient to preserve in their purity the first principles of that science. Nay, it is quite enough that such a paper should be found at all in the Academy's publications. Its existence there, amply proves the degraded state of political knowledge in the degenerate country of Quesnai, Turgot, and Condorcet. The National Institute, it must always be remembered, do not, like our Royal Society, decline committing themselves, by giving their opinions as a body on the questions which come before them for discussion. Through the whole of their volumes, we meet with constant evidence, that what is given to the world under the name of their Transactions, contains, if not the opinions of the active members, at least nothing from which they would widely dissent. For proof of this, we refer particularly to the history of the classes, in which the sentiments of those bodies are expressly stated upon a great variety of detailed points. Thus, their opinions upon the comparative merits of papers are distinctly given. Public events, remotely connected with science, are commented upon. The joy, for example, of the moral and political class, is warmly expressed in the volume now before us, upon the event of *General Napoleon Bonaparte, a member of the mathematical class*, having been elevated to the head of the government. The feelings of this body, upon some tender subjects, are also communicated to the world. 'The class was struck as with a thunderbolt, at the sudden death of the resident member Baudin; and though it will long retain its sorrow, some consolation has been received from the election of Citizen Bigot.' (p. 314.) Nor does the class seem insensible (and always as a body, be it remarked) to the tender effusions of its absent members. Notices are given of their affectionate letters. Thus, we are told that 'Citizen Dupont, before setting out for America, wrote from the vessel in which he was to sail, a letter, filled with expressions

expressions of the most touching sensibility, and ending with an attestation, that his last vows on leaving Europe were for the prosperity of the Institute.' The attention of this body is also, from time to time, directed towards the latter end of all things, if we may judge by no less than two reports of committees appointed to inquire into the proper form of funeral for the members. The Institute orders, that black crape shall be worn round the left arm, and complains loudly of want of accommodation in the burial ground. In short, the whole memoirs of this society attest, that the members act and think with a certain *esprit de corps*; and entitle us to conclude, that nothing is published in their volumes which is repugnant to the general opinions of the acting fellows. Had there been any belief in, or concern for the truths of political economy, among those who compose the moral and political class, nothing could have prevented the rejection of the paper which we have described to our readers, by a short sketch of its contents. The conclusion is inevitable,—that this science is gone down in the first circles of France. The application is obvious. Let it find a refuge in our free and enlightened country; and may we be assured that its progress will be in proportion to the attention, not the favour, with which every new work is received, and the impartiality with which all new doctrines are scrutinized, by whatever names they may be recommended, or with whatever confidence they may be advanced.

ART. XI. *Voyage dans les Quatre Principales Iles des Mers d'Afrique, fait par ordre du Gouvernement, pendant les années neuf et dix de la Republique (1801 et 1802), avec l'Histoire de la Traversée du Capitaine Baudin, jusqu'au Port-Louis de l'Ile Maurice.* Par J. B. G. M. Bory de St Vincent, Officier d'Etat-Major; Naturaliste en chef sur la Corvette le *Naturaliste*, dans l'Expédition de Découvertes, commandée par le Capitaine Baudin. Avec une collection de 58 Planches, grand en 4to, dessinées sur les lieux par l'Auteur, et gravées en taille-douce. 3 tomes en 8vo. A Paris. An XIII. (1804.)

A TRAVELLER who 'compasses sea and land' that he may sleep on the top of a burning mountain, and singe his great coat on the brink of a crater, may be allowed to dispense with the ordinary formalities of writing. M. Bory, accordingly, takes an early opportunity of asserting his privilege, and boldly inverts the vulgar relationship of book and title-page. The customary office of the latter, it is pretty generally known, is to announce the

the subject of the former. But, in the present instance, by one of those simple and beautiful expedients which bespeak true genius, he has contrived to render all the subsequent pages of the work subservient to the explanation of the first, and thus to keep alive the curiosity and attention of the reader to the very end of his performance. Ladies and country gentlemen have not the names of 'the four principal islands of the African seas' always ready at a call: and even we hoary critics, who recollect to have read in our gazetteers and other oracles of geographical intelligence, that Madagascar is one of the fore-said principal islands, have been fairly at fault in our conjectures concerning this mysterious title. A diligent perusal of the whole narrative, however, warrants us to assert with certainty, that our naturalist never touched at Madagascar, and to conjecture that Teneriffe, the Isles of France and Bourbon, and our own little rock of St Helena, are *probably* the islands in question.

To denominate the same place by the same combination of vowels and consonants, is a practice, no doubt, which has the apology of vulgar example; but it argues, in our apprehension, great poverty of taste in the writer, and is apt to fatigue the reader, by the sameness and monotony of the repetition. Hence, the compounder of these volumes dexterously rings the changes on the *Isle of France* and *Maurice*, and on *Bourbon*, *Mascareigne*, and the *Isle of Reunion*.

The extraordinary length of the author's own name, and his laudable spirit of enterprize, naturally prompted our curiosity to learn some particulars of his history. These, however, he deals out when and where he pleases. Thus, we find some general notices of his early life and conversation, at page 190th of the third volume, forming an agreeable relief to a long Latin catalogue of plants, and dreary descriptions of volcanic dross.

'Educated,' says he, 'for the sciences, by a well informed and very prudent parent, the revolution soon dragged me from those peaceful occupations for which he formed me. Forced into the army, because I had attained the marching age, I became a soldier. The greatest obligation which I owe to the education which was bestowed on me, is a certain degree of philosophy, which has always enabled me, as the old adage expresses it, *to take courage against fortune*. When fairly placed in the ranks, and convinced that I neither could nor ought to quit them, I struggled with all my might for favourable distinction, that I might no longer be blended with the crowd.'

We may observe, in passing, that we do not perfectly comprehend the consistency of this narrative. M. Bory neither *could* nor *should* quit the ranks: yet he makes every effort to quit them, and *succeeds*.

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‘ When the expedition of discovery failed from France, the prospect of approaching peace induced me to convert to my profit and instruction the years of tranquillity which, I then presumed, could not be very numerous. I had the assurance of the minister, that, on my return, I should be permitted to rejoin the army, on producing a certificate that I had not quitted the expedition ; and that my time should be counted as service at sea. ’

Notwithstanding the eagerness with which he had solicited to be a member of the expedition, it is certain that our author quitted his associates in the midst of their perils, accepted of some secret mission from General Magallon to the French government, and returned home in a neutral vessel. He has not condescended to inform us how he was received at the court of Napoleon ; nor whether he still perseveres in his adventurous scheme of visiting Madagascar, India, the Asiatic Islands, and the heart of Africa, (into which he is determined to penetrate, or die), ‘ when France shall have compelled her enemies to grant her a long and glorious peace. ’

For other biographical particulars, we must turn to the commencement of the first volume, where we find him, under the designation of *chief zoologist*, expressing his decided passion for voyages and travels, and his entire approbation of the details of an equipment so admirably adapted for the promotion of science. The officers and naturalists with whom he became particularly acquainted at Havre de Grace, and in whose society he was on the eve of exploring foreign countries, were all endued with the requisite talents, professional skill, and perfect urbanity. ‘ A harmony which time was destined to confirm, soon reigned among us all. I reckon among the most fortunate periods of my life, that in which I formed so many precious connexions. ’ We know not how M. Bory can reconcile this charming description with the strictures which occur in other parts of his relation, particularly with the want of scientific books, the alleged incapacity and misconduct of his commander, and the insignificance of *Petitin*, a nominal secretary, who deprived Depuch, the mineralogist, of a comfortable bed.

Among the thirty-three persons, who composed the staff of the two corvettes, and who are celebrated as paragons of perfection, we distinguish few of name. M. Michaux, indeed, the author of travels in Persia and in North America, was on board the *Naturaliste*, though only as a passenger. We are sorry that we have not the honour of being acquainted with M. Peron, who embarked in the capacity of *anthropologist* to the expedition, and who, being specially charged with the ‘ study of man, ’ ranks at the *tail* of the *zoologists*. For the honour of human nature, we trust that M. Peron will assert his claims to stand higher on the

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Etat-Major, by publishing a few quartos on the anthropology of the Isles of France and Bourbon.

But, to return to the hero of our present lucubrations, it is worthy of remark, that, after duly commemorating the complete appointment of the expedition, he bitterly deplores the paucity and injudicious selection of books. This, again, rather startles us: for, in his preface, he seems to hold books very cheap, and talks of the 'luxury of quotation,' as suitable only to works of a very different description from his own. We greatly respect his motto, *J'ai vu*; but few naturalists, zoologists in chief though they be, will do much justice to themselves, or their publications, without consulting the writings of others, especially of the systematists. Indeed, after all this gentleman's high pretensions to independence, we conceive that he is materially beholden to various tomes of nomenclature and description; and his performance would have acquired a more pleasing variety, and additional interest, from more extensive reading, both on the principal and collateral matters which he has condescended to discuss. A mind gifted with more than ordinary activity, and equally ready to combat armies, or hunt butterflies, may, unquestionably, achieve much in virtue of its own energies; but no talents, or versatility of disposition, can justify a total disregard of those writers who have preceded us in any department of inquiry. Whether their notices may supply useful hints, or lie open to animadversion, they have claims on our attention; and the public expect that we should be equally disposed to profit by their information, and to correct their mistakes.

During the two or three first nights of the passage to Teneriffe, M. Bory became sentimental, and slept ill; not, however, from sea-sickness, but from thinking of his dear country. 'To compensate for this 'moral situation, which was truly afflicting,' he enjoyed, during the day, 'a most voracious appetite.' Nor is this the only occasion on which we find a violent desire for food conjoined with delicate emotions and the enthusiasm of science. The exalted company of Peron, the anthropologist, and Bernier, the astronomer, appears not to have repressed the solvent virtues of the gastric juice. 'When we returned to town,' says the journalist (vol. I. p. 22.), 'we had a furious appetite.' And sorry we are to add, that, for the sum of five livres, these sons of science could only procure a dinner, which would hardly be tolerated, even at the frugal board of a Scottish reviewer. Again, the enchanting lectures of Broussonnet on the beautiful productions of the forest of Laguna, were instantly deserted, when the voice of Monsieur Legros summoned the audience to a comfortable meal. The narrative, moreover, sets forth (I. 64.), that 'this dinner

dinner was well received, but better devoured ; and such was our appetite, that it was not till we had made a wide breach in the repast, that we missed Michaux, whose zeal had drawn him to a distance. He was not seen again till evening, when he returned to Laguna late, and *fasting*. ' Alas ! poor Michaux !

The appearance of a broken mast floating on the waves, made little impression on any of the crew except on the susceptible heart of M. Bory. His sorrowful reflections, however, ' fortunately vanished with the object which suggested them.' On the 8th of Brumaire, his journal reminded him, that it was exactly a month since he had taken leave of Paris, and every thing that he held dear. He therefore exclaims, ' When will it be three years ? ' Yet, on the whole, we are happy to learn, that his mind was tolerably tranquil during a run of fourteen days from Havre to Teneriffe, though his head, to be sure, was somewhat embarrassed ; and he felt less inclined to active pursuits, than in the subsequent stages of the voyage. ' My departure,' he adds, ' had not affected me with a lively sorrow, nor did my arrival inspire me with excessive joy. They who know me will be surprised at this ; for I am by no means indifferent, or insensible.' Such is the writer who quotes with approbation *le Je est haïssable*, and who, from his declared antipathy to *egotism*, had been strongly tempted to suppress the publication of his voyage.

The account of Teneriffe with which we are here presented, is, in some measure, eked out by extracts from, or references to a former work, entitled, ' Essays on the Fortunate Islands.' We confess, however, that we did not expect to find the following slipshod remark among the reprinted passages.

' In general, the most wealthy inhabitants of the port have adopted several English fashions ; yet the men dress like the French, because they are convinced that taste is inseparable from our nation : and in this respect they have done us more justice than Mr Cooke. This navigator never allows an opportunity of criticising us to escape him. We read, in his third voyage, that *the inhabitants of St Croix are sufficiently decent, if we except their dress*, which is that of the French. Had any person but Mr Cooke penned this sentence, it would be reckoned at least inapplicable. But the time is not yet arrived, and the British navigator still passes for infallible. Yet, certainly, if it be ridiculous to follow the fashions of Paris, London is more obnoxious to the imputation than all the world beside.'

From such a pitiful trait of nationality, we pass to M. Broussonnet, member of the Institute, who resided on the island as agent of commerical relations, and who is advantageously known by his proficiency in different departments of natural history. Should this gentleman ever complete his intended *Flora Canariensis*,

sis, he will contribute not a little to the promotion of botanical science. Meanwhile, the first volume of the present voyage will be found to contain some interesting and novel particulars relative to the indigenous vegetation of Teneriffe. Several rare plants, as *Saccharum Teneriffæ*, *Semper vivum Canariense*, *Lobelia Broussonetia*, &c. are particularly mentioned; and we are agreeably surprised to find some of the humbler tribes introduced in the course of the following important remark.

'The cryptogamy of the forest of Laguna is not less rich. It is a prejudice to suppose, that the timid plants of this class are more appropriate to cold countries, and that few of them are to be found in hot climates. We shall have occasion to observe, that in the Isles of France and Bourbon, which are situated in the Torrid Zone, mosses and ferns are the fairest portion of Flora's domain. We shall mention here, as belonging to Teneriffe, *Blechnum radicans*, which should constitute a separate genus, *Trichomanes Canariensis*, a beautiful fern peculiar to the Fortunate Islands, *Asplenium adiantum nigrum*, *A. latifolium*, *A. hemionitis*, *A. trichomanes*, two or three species of *Pteris* unknown to our climates, a new *Polypodium*, several European mosses, two non-descript *Hypna*, &c.

Although the naturalists remained eleven days on the island, and the weather was extremely favourable for scaling the Peak, the commander seems to have interferred in preventing the attempt. Something of an awful mystery, however, is mingled with the regrets expressed at the disappointment.

The ichthyologist may derive entertainment and some instruction from the notices of different species of fish which occurred to M. Bory's observation as he proceeded southward. His remarks on the luminous appearance of the sea in the night, though they present little that is new, are likewise deserving of perusal. After exposing them with some degree of affectation and complacency, he pretends that he only states facts and doubts, and leaves it to the learned to draw conclusions. Yet we shall afterwards find him boldly theorizing on subjects of greater magnitude, and more remote from the sphere of human intellect.

From sharks, molluscæ, flying fish. &c. we return to the leader of the expedition, who certainly does not appear in the amiable and interesting relations which we associate with the name of Cooke, a name which the author affects to treat with contempt. When the two corvettes had nearly got entangled by the yards, the commander expressed his displeasure by *throwing his hat on the deck, and giving it TWO KICKS*.

'An able astronomer of the expedition related to me, one day, when we were talking of the commander's apprehensions about the near approach of the vessel, a very singular fact, which officers have since confirmed to me, though confirmation, in this case, be superfluous, as my original

original authority is a man of honour. Having occasion for a magnetic needle, to replace that of an azimuth compass which had been injured, the astronomer applied to the commander, who had several in the drawer of his mahogany bureau. M. Bandin, who happened that day to be in a pleasant humour, intreated him to enter his cabin, and searched for the box of magnetic needles. By the accidental admission of moist air, the steel was somewhat rusted, and the magnetic virtue sensibly impaired. Observing the astronomer's serious disappointment, "What else can you expect?" (said the Captain, to comfort him); "all the articles provided by Government are shabby beyond description. Had they acted as I could have wished, they would have given us silver, instead of steel needles."

The Captain's journal is afterwards described as an immense and splendid volume, filled with *beautiful drawings* by a sailor lad, and containing nothing else worthy of notice.

After encountering a severe storm, which he very prudently declines painting in the romantic style, and after feeling the unequivocal symptoms of declining health, our jaded navigator and his learned associates arrived at the Isle of France. Here they were strictly scrutinized at the health office, in consequence of the ravages which the small-pox had made among the islanders. These colonists resist the introduction of variolous and vaccine inoculation with unaccountable obstinacy.

In the then distracted state of the settlement, the expedition was at first received with coldness and ambiguity: nay, it was even suspected, that, under the cover of a scientific voyage, was concealed the design of chastising the recent disaffection of the greater part of the inhabitants. We impute no such intention to the members of the expedition, or to their employers: at the same time, from various hints and circumstances, we are warranted to surmise, that something more than the advancement of physical knowledge was included in the secret plans of the enterprise. We no where find a copy of the instructions; M. Bory is reserved with respect to the particular objects of this ostentatious equipment; and his book promises to be the only result which the public have to expect from a roaming college of the arts and sciences.

A few remarks relative to the Isle of France, are accompanied with strictures on the haughty and interested deportment of the commander, and on some evident symptoms of the disorganization of the party. The author, in a reduced state of health, and much irritated at the conduct of his superior, takes leave of his brethren at the harbour, retires into the country, and finds sentimental consolation in contemplating the plains of Willems, and in wandering, as a botanist, over hill and dale. His speculations
on

on volcanoes, and on the organic remains of former times, suggest some obvious and pertinent geological reflections, which, however, he spins out into ludicrous refinement. We admit, that while vestiges of frail leaves and insects are visible on calcareous and schistose strata, no such traces are found of the lord of the creation. But who would believe that this fact gave rise to the pyramids of Egypt? 'The pyramids are, perhaps, the work of a people as much advanced in the sciences as ourselves, and who were mortified not to find, in any calcareous substance, convincing proofs of the antiquity of our species.' In all probability, the founders of the pyramids never inquired if a human femur or tibia had been detected in a lime-quarry.

Our *sentimental* traveller appears to have derived much amusement from the *hunting of apes*, though even his redoubtable appetite shrunk from the flesh of those lovely creatures, from the conviction that a roasted ape must resemble a *roasted child*. A reason not less satisfactory is added, namely, that apes' flesh is a detestable morsel.

From the pleasures of the chase, and the prosecution of his botanical pursuits, M. Bory was suddenly diverted by the appearance of Commodore Elphinstone's Squadron. General Magallon, who seems to have treated him with more marked attention than Captain Baudin, not only accepted his offer of military service, but attached him to his staff. With all the versatility and national vanity which characterize his countrymen, the naturalist exchanged his herborizing box for a knapsack, and expected to see the English 'reap only disgrace.' On the disappearance of the Commodore, however, he undertook a commission for General Magallon, to be executed in the Isle of Bourbon.

Although the account of this last mentioned island forms the most extended, and, perhaps, the most interesting portion of the work, our readers will pardon us if we forbear to dilate on its contents. Even an abridged view of the various qualities and configurations of the volcanic products, which are here recorded, would greatly exceed our limits, without being very intelligible to any but professed *Plutonists*, while their forms and fashions are incident to such sudden and frequent changes, that different dispositions may present themselves to the next adventurous traveller. Some of the best descriptions, too, admit not of compression, and others will be better understood by comparing them with the plates. If, on many occasions, the descriptions of particular portions of lava appear to be heavy and superfluously minute, we must nevertheless acknowledge, that they form a valuable supplement to the writings of those geologists who have most accurately examined volcanic countries. They likewise demonstrate,

monstrate, that the four islands in question have been formed by the agency of subterraneous fire; that the immense tracts of basalt and trap which occurred to the author's observation, are decidedly of igneous formation; and that the columnar ranges do not assume their prismatic character, as has been generally supposed, from their fused materials coming into contact with the sea. These are important facts, which have been seldom placed in a more luminous point of view. But for the details which so copiously illustrate them, we must refer to the work. The physical map of this volcanic island appears to be executed with much care and diligence; and the exhibitions of basaltic columns in vertical, horizontal, inclined, and curved directions, are strikingly delineated in the plates.

M. Hubert's experiments relative to the increased temperature of the spadix of *Arum cordifolium*, during the impregnating process, will arrest the attention of the botanical reader. We shall notice only a few of the results. Five of these spadices, which had unfolded during the night, being applied at sun-rise to the tube of a thermometer, elevated the mercury from 19 to 44. At eight o'clock, the standard thermometer marked 21, and that employed in the experiment 42. The heat of the spadices gradually diminishing, at length indicated only seven degrees of difference. The same trials, seven or eight times repeated, gave the same results. The maximum of temperature produced by entire spadices, was 49½. According to different degrees of mutilation, the maximum varied from 37 to 42. The contact of atmospheric air, though not of light, is necessary to the development of this vegetable heat, which seems to be confined to the outer surface of the spadix. From the observations of M. Lamarck on *Arum Italicum*, and those of the author on *Arum esculentum*, it is manifest, that this singular property of giving out heat is not peculiar to one species of the genus. M. Bory even suspects that it may belong to most vegetables in a greater or less degree.

The frequent occurrence of detached descriptions of natural productions will be apt to repel ordinary readers from the perusal of these volumes. Yet painting of a higher cast, and views of large and striking portions of scenery sometimes animate and embellish the monotonous air of the work. From several passages which might be quoted in confirmation of this remark, we select the following, on account of its brevity.

' When arrived at the top of the Piton Rouge, we enjoyed a most august and solemn spectacle. Behind us, the calm sea and serene sky were blended in the distance. On our right, rose the Piton Rond, exhibiting a truncated aspect towards the sea. Before us a mountain shot

aloft in majesty, and concealed the sun, which still shone on the other side of the island. Over its dark and wooded ridge, were scattered elevations resembling unequal waves. On the left, lies the vast volcanic district, whose sombre and fuliginous aspect fills the mind with gloom. A huge dome of surprising regularity, surmounted by a prominent truncation, crowns and commands the prospect. This dome is the furnace of the volcano, or vent, by which the subterranean fires seem to communicate with those of heaven. Its enormous sides are marked by shades of a more livid hue and metallic tints. Those are extinct currents of a yellow, greyish, or bronze colour, which had forced a passage through the scorious crust of the volcano.

‘ But when night had wrapped these silent abodes in the thickest shades, a new species of horror fixed us in admiration. The crested summits and the mass of mountains were still depicted under a dark sky. The crater of the furnace exhaled a column of blazing smoke, which was dissipated in the air, but coloured with fire some clouds which floated in the higher regions of the atmosphere. Amid distant and confused peaks, lightened by a bloody gleam, a burning river, whose source was concealed from view, slowly conveyed its glowing waves over a black soil, rendered still more dark and dismal by the glare of the liquid lava.’

We are likewise pleased with our indefatigable journalist, when he traces the progress of former eruptions, and calculates the quantity of incandescent and fluid matter ejected at particular periods. We applaud that dauntless perseverance which physical obstacles and friendly remonstrance could not shake, and which conducted the adventurer to the summit of a volcano, which has been seldom contemplated by scientific eyes, and which we are now enabled to compare and contrast with Etna, Vesuvius, and Hecla. At the same time, we must confess, that we have more frequently yawned over relations of cheerless solitude, and ‘ stumbled on the dark mountains,’ than felt ourselves carried along the diversified route with smoothness or enthusiasm. Nor must we dissemble, that, in the course of our arduous and painful peregrinations, an extravagant fancy has sometimes crossed our path. We have alluded above to the author’s extravagant theory of the foundation of the pyramids; and we have now to be informed of the origin of the *fiery dragon*. Near the top of the volcano, the various streams and streamlets of lava have assumed multiplied and fantastic configurations, exhibiting coarse representations of cables and brains, snails and intestines, rolls of wet linen and tortoisés, turbans and large concentric cakes, &c. Frequently they shoot into long projections, with palmated extremities, and a scaly incrustation.

‘ But one of their most ordinary and complete similitudes, is that of the sinuous tails of monstrous serpents, &c. In fact, the manner in which the dragon has been described, would tempt us to believe, that this emblem,

blem, so little understood, was neither more nor less than that of volcanoes.'

Delighted with this happy conjecture, our traveller fondly pursues it through all the windings of the monster's tail, and appeals, with ludicrous confidence, to the mythology of the Chinese and Egyptians, of the Greeks and Peruvians. Again, the livery of demons and furies is thus accounted for.

'Black and red are, on our theatres, in our pictures, and in the writings of our poets, the appropriate colours of demons and furies. This idea is mythological, and is certainly borrowed from Italy: for Italy, filled with volcanoes, so much resembled the abodes of the infernal deities, that we have every reason to believe, that these burning mountains have been assumed as the prototype in the religions which recognize a hell.'

To return from the regions of fiction, it is worthy of remark, that Bourbon is obnoxious to more frequent eruptions than any one of the European volcanoes. Since the discovery of the island, its craters, in constant activity, have never ceased to harass the inhabitants. M. Hubert, who has attentively watched the volcano since 1785, assures us, that this mountain has discharged lava at least twice every year; and that eight of its fiery streams continued their progress to the sea.

At page 388. of volume second, it is stated on the joint testimony of the author, and the accurate M. Hubert, that, in very calm weather, the flexible leaves of the palm trees, viewed over a large extent of ground, have a perceptible direction to the centre of the island, attracted, as it is conjectured, by the mountainous regions. We could wish, however, to see this singular assertion more distinctly verified.

Few studies, it will be readily admitted, have a more direct tendency to expand the mind, and to generalize its ideas, than that of natural history. In contemplating those astonishing operations which are daily taking place on the grand theatre of the physical world,—in speculating on the production and the ruin of islands and continents,—in meditating on the countless generations of organized beings, which pass away and are forgotten in the lapse of ages, we sink at the petty passions and prejudices of individuals, who breathe their little hour, and are so soon to give place to others. Such striking considerations are powerfully calculated to annihilate the spirit of party, and the animosities of nations. It is therefore with peculiar regret that we are compelled to advert to the *nationality* of Messieurs Bory and Hubert. We have already given a sample or two of 'the sin which most easily besets' their countrymen; and if we can make room for it, we may, perhaps, adduce a notable instance of that figure of

speech termed *gafconade*. In the mean time, these strictures were suggested by the following extract of a letter from Hubert. Though his friend's *modesty* has banished it to the margin, it is not, on that account, the less precious.

' I was really anxious about you, my dear friend ; for I was apprized of your determination to scale the volcano on the side next the sea. I can scarcely believe what I heard concerning the accomplishment of such a design ; but your letter has convinced me, no less than the relation of your man, George, who especially remembers, that you continued a whole day without drinking, and two days with scarcely any food. I pity the servants of such enthusiastic naturalists as you. In fact, you travel as the French make war, *I mean like those who are deterred by no obstacle, and who banish the word IMPOSSIBLE from their language.*'

A little farther on, we are treated with an animated account of the process of world-making *à la Française*. This luminous hypothesis blazes over many pages ; but its import may be conjectured from this single, though pompous and eventful paragraph.

' Let it be granted, that the planets and their satellites are the result of a premeditated design to organize additional worlds ; or that, abandoned to the general laws impressed on the elements, the principles destined to compose the totality of their masses, had, in the lapse of time, and according to those laws, sufficed to effect the creation, of which we form a part, we may then propound the following hypothesis. To determine the birth of planets fated to exist, a heavenly body precipitated into the sun, detached masses from it, or, in consequence of breaking, its own fragments, impelled nearly in the same plane, and projected by such a violent impulse, formed in space the nuclei of the globes of our system.'

Though we should concede to the framer of this hypothesis, or rather to his celebrated precursor the Count de Buffon, this gratuitous concourse of heavenly bodies, this frittering of a large world into so many small ones, what do we gain ? If we remove the difficulty which attends every attempt to explain the formation of a planet one step, we adopt a very clumsy and disorderly mode of multiplying the objects of creation, without increasing the quantity of matter already existing. The production of the sun itself, and of the comet destined to impinge on its mass, is just as mysterious as ever. That the several fragments dispersed in space, should be in a high state of *ignition*, and that the central fires of our globe are gradually augmenting, are positions by no means proved. On the contrary, the sun, so far from being an immense world of conflagration, is, probably, opaque and habitable, and merely surrounded by a luminous atmosphere, so that fragments driven off from its substance might perform

perform their march with the utmost *coolness*. That the interior of our globe is replete with combustion, is a mere assumption; and, if proved, the increase of such combustion is not warranted by fact. But it is really wasting time to confute ~~this~~ *réchauffé* of a theory, which, like others, has had its day, and which, with the thinking part of mankind, has had a place assigned to it among the numerous monuments of human ignorance and presumption.

The infrequency of earthquakes, and of thermal waters in a country so decidedly volcanic as the isle of Bourbon, is mentioned as matter of surprise. We feel some hesitation in acceding to the opinion, that earthquakes are most frequent and violent about the commencement and extinction of volcanic combustion; but it is impossible to object to the reason alleged for the paucity of mineral waters, viz. the scarcity of springs of any description.

The first vegetation of a new soil, remote from continents and the intercourse of man, is a botanical problem of difficult solution. The present writer objects, with much plausibility, to the received notions of winds, water, and birds conveying an adequate and sufficiently varied supply of seeds in a state fit for germination. But his hypothesis of *temporary* and *partial* acts of creation, adapted to *existing circumstances*, is, according to our conceptions, unphilosophical, and by no means countenanced by fact. What, we would ask, have these supplementary acts effected for the island of Ascension, a volcanic ejection of comparatively recent date? 'Its immense distance from land,' observes the late Dr Walker, 'renders its acquisition of seeds difficult and precarious. I know but of two ways of supplying it with seeds, one by the water of the ocean, the other by birds. By one or other of these ways, it has got possession of three species of plants, and only three, a singularity no where else known.' Many existing islands are, probably, only portions of continents, and received their quotas of vegetable germs in periods of high antiquity. Others, which owe their present appearance to the agency of subterraneous fires, may have previously existed at no great depth under the surface of the sea, and in such a state as to preserve the rudiments of future plants from the contact of air or other causes of corruption. Amid the physical convulsions which may have agitated various tracts of the earth's surface, some of the many sources of vegetable reproduction may have been kept alive, while the fortuitous movements of wind, water, and birds may have also contributed their aid. In reasoning, however, on such a subject, we may truly say, that 'we are of yesterday,' and that 'we know nothing.' History, eager to keep pace with the busy, but fleeting events, which

harass the successive generations of rude and of civilized society, presumes to disdain the silent yet majestic march of nature, who steadily observes her course, heedless of the clamours of contending factions, and of the miseries which man inflicts on his brother. And thus, since the days of Theophrastus till those of Linnæus, the flower, which has not ceased, with the return of spring, to disclose its beauty, or dispense its fragrance, and the more homely herb, which has continued to minister to the shelter or sustenance of animated beings, have, as subjects of inquiry, been condemned to peculiar neglect. The affinities and migrations of the vegetable families, in the early and subsequent ages of the world, it is now impossible, from want of proper documents, to ascertain. Either they never found a place in the registers of man, or, if they did, their history has for ever perished. What given tract of land can, at this day, exhibit the uninterrupted genealogy of its vegetable tribes? Impressions of races, long since extinct in the colder latitudes, are still visible in various strata of schistus, coal, and iron stone. Their prototypes have, perhaps, perished, or, perhaps, they exist in Africa or Indostan. These remarks, by the way, would lead us to infer, in opposition to the author's sentiments, that the heat of our planet is gradually diminishing.

The nonage of creation, if we may so speak, is a favourite notion which M. Bory endeavours to confirm, by the varying aspects of some plants, and the former existence of the shapeless *dronte*. These, he would persuade us, are the first essays of creation, and not yet reduced to their permanent and specific distinctions. But why suppose that the very first act of creation is less perfect than any subsequent one? Why not perceive, that, in every country, there are hybrid and accidental varieties, which belong not strictly to any species noted in a scientific nomenclature? or, why not discern that our most accurate distinctions often insensibly glide into one another, and that nature smiles at our artificial arrangements?

We have to remark, however, that the botanical research manifested in these volumes, is highly creditable to the author's diligence. Besides various rare and nondescript plants, he has carefully noted those kinds which are also indigenous to Europe. Among these last, we notice several cryptogamies, as *Equisetum hyemale*, *Lycopodium clavatum*, *L. denticulatum*, *Pteris aquilina*, *Asplenium adiantum nigrum*, *Polypodium aculeatum*, *Adiantum capillus veneris*, *Trichomanes tunbrigense*, *Sphagnum cymbifolium*, *Polytrichum commune*, *Bryum alpinum*, *B. striatum*, about twenty *Lichens*, four *Conserve*, with various *Fuci* and marine *Uve*. The descriptions of plants in the margin are generally distinct and

and elegant; and several of the more striking species are figured in the plates. It is, moreover, intimated, that the collections of dried specimens are varied and abundant, and that their contents will shortly receive illustration from the pens of professed botanists.

We cannot close our account of the physical information contained in this performance, without noticing the despised fragments of an atmospheric stone, which had alighted on the *Isle aux Tonnetiers*, a short time before the arrival of the expedition. We certainly could have wished that the circumstances of its fall had been more minutely stated. At the same time, we are fully disposed to believe in its celestial origin, at least more so than in M. Bory's theory of the general phænomenon, a theory which emulates the oak of the Latin poets, and knows no limits but heaven and hell. With professions of much deference to the hypothesis of La Place, which ascribes these *outlandish* stones to the projecting force of lunar volcanoes, M. Bory very modestly states his own doctrine in several pages. From these, it appears, that in ancient times, ignivomous mountains were endued with mighty force, though, like the race of mortals in Homer's day, they have sadly degenerated from their ancestors. Without staying to examine the causes of this deplorable degradation, or to reduce to consistency, the expiring energies of volcanic projection, with the accumulating intensity of the central heat; it appears not at all improbable, to our fiery champion, that from the said mountains, masses of matter were propelled from an immense depth, to such a height, as to perform spiral circumigrations, somewhere within the limits of our planetary system, till, in the course of ages, they came to pop down, and take their rest on the surface of mother earth.

But, as 'such knowledge is too wonderful for us,' as 'it is high,' and 'we cannot attain to it,' we willingly pass to '*one of those historic meteors*,' to 'one of those brilliant moments in the annals of every people, moments which vanish with the authors of their splendour.' The establishment of a line of naval stations, from the Cape of Good Hope to Ceylon, including the isles of France, Bourbon, and Madagascar, with the relinquishment of the French territorial possessions on the continent of India, are pompously held out as the infallible means of crushing the overgrown power of Great Britain in the east, and thus striking at her very vitals!

At St Helena, this bold speculator was not permitted to explore the natural productions of the island. He seems, therefore, to have considered himself as particularly called upon to

make the governor and his guests the subject of his observations.

‘ The governor was a man of sixty years of age, thin and ruddy, with a full-bottomed wig, highly powdered and curled, like that of Quipotis, which gave him a very comical air. He addressed several sentences to us, which no doubt were very polite ; and he prevailed on us to go up stairs, and partake of the repast. As I did not well understand what he said, his aid-de-camp told me, in a jargon hardly intelligible, that *the governor had been speaking French to me.*

‘ At a moment when France had just compelled Europe to grant her a glorious peace, but had yet scarcely breathed from those revolutionary commotions which had tarnished her reputation in the eyes of her enemies, I knew not well what countenance to assume among men who the least regard us. I was desirous to appear neither humble nor haughty ; and yet to maintain a character among those who believe they have one, and who judge of every thing by appearances. Though I suspected that my acceptance of the governor’s obliging invitation might be reckoned unseasonable, I was nevertheless curious to see the English at one of their great dinners. My companions freed me from this dilemma. They mounted ; and I followed.’

The governor’s party consisted of forty persons ! With the exception of his two daughters, one of whom seems to have half captivated our *combustible* journalist, the circumstances of the entertainment are described with more sarcasm than pleasantry. *Two hundred* crystal bottles of wine, of which poor M. Bory was compelled to drink liberally, though he gave the go-by to a multitude of toasts, flourished in the fore-ground of the dessert ; and we are left to infer, that British hilarity and inebriety, are synonymous terms.

‘ As it was whispered at table, that I belonged to General Magallon’s Staff, two tall gentlemen came near me ; and one of them, a Colonel of Engineers, who spoke passable French, began to converse with me. He asked me a multitude of questions concerning the Isles of France and Bourbon, their resources, their population, and the means of their defence. I was almost tempted to treat him in the *English style*, by *exaggerating* on every topic of his inquiries. However, I gave him such answers as I thought proper, and conformable to truth. The other gentleman, who had been silent for an hour, then took his turn of the conversation, and, after having again interrogated me, informed me that he was Commodore Elphinstone.

‘ Commodore Elphinstone enjoys a certain degree of reputation in the English Navy, and had served, it seems, with distinction in India. On receiving accounts of the peace, he had left his ship, and taken his passage for England on board an Indiaman. The Commodore had frequently cruized before the Isle of France. He had a high opinion of the talents of General Magallon ; and he told me, that had not the peace

peace taken place, his government had projected an attack on the Mauritius. He added too, that he was to have directed the execution of it. As he talked to me of all the formidable resources which would have been employed, I told him with politeness, that had the attack taken place, I should have been glad that it should have been conducted by him, because his good offices to the prisoners whom he had frequently taken, had secured him the affection of many people. The Commodore, interpreting my words quite differently from what I meant, thanked me heartily, and, after having frequently repeated, *you are too polite*, he added, *Indeed, after the reduction of the island, I should have done all in my power to have secured good treatment to every body.* Here I stopped him short. "Commodore," said I to him, "you have misunderstood me; my only reason for wishing that you should attack us rather than another, is, that the governor might have it in his power to return to you, when a prisoner, all the civilities which you have shewn to the seamen whom you have taken on different occasions." On this the conversation broke off. My two Englishmen turned their backs on me, and have never seen me since.

M. Bory may thank his stars that the separation was followed by no *ignominious explosions*: and, on taking leave of him, in our turn, we have only to observe, that, with all his talents and acquired information, with all his readiness to engage in bustling or in plodding occupations, and with all his facility in composition, we hope he is still *young*, and are afraid he will always be a *Frenchman*.

ART. XII. *Memoires d'un Temoin de la Revolution: ou Journal des faits qui se sont passés sous ses yeux, et qui ont préparé et fixé la Constitution Française.* Ouvrage Posthume de Jean Sylvain Bailly, Premier President de l'Assemblée Nationale Constituante, Premier Maire de Paris, et Membre des Trois Academies. 8vo. 3 Tom. Paris, 1804.

AMONG the many evils which the French revolution has inflicted on mankind, the most deplorable, perhaps, both in point of extent and of probable duration, consists in the injury which it has done to the cause of rational freedom, and the discredit in which it has involved the principles of political philosophy. The warnings which may be derived from the misfortunes of that country, and the lessons which may still be read in the tragical consequences of her temerity, are memorable, no doubt, and important: but they are such as are presented to us by the history of every period of the world; and the emotions by which they have been impressed, are in this case too violent

make the governor and his guests the subject of his observations.

‘ The governor was a man of sixty years of age, thin and ruddy, with a full-bottomed wig, highly powdered and curled, like that of Quipotis, which gave him a very comical air. He addressed several sentences to us, which no doubt were very polite ; and he prevailed on us to go up stairs, and partake of the repast. As I did not well understand what he said, his aid-de-camp told me, in a jargon hardly intelligible, that *the governor had been speaking French to me.*

‘ At a moment when France had just compelled Europe to grant her a glorious peace, but had yet scarcely breathed from those revolutionary commotions which had tarnished her reputation in the eyes of her enemies, I knew not well what countenance to assume among men who the least regard us. I was desirous to appear neither humble nor haughty ; and yet to maintain a character among those who believe they have one, and who judge of every thing by appearances. Though I suspected that my acceptance of the governor’s obliging invitation might be reckoned unseasonable, I was nevertheless curious to see the English at one of their great dinners. My companions freed me from this dilemma. They mounted ; and I followed.’

The governor’s party consisted of forty persons ! With the exception of his two daughters, one of whom seems to have half captivated our *combustible* journalist, the circumstances of the entertainment are described with more sarcasm than pleasantry. *Two hundred* crystal bottles of wine, of which poor M. Bory was *compelled* to drink liberally, though he gave the go-by to a multitude of toasts, flourished in the fore-ground of the dessert ; and we are left to infer, that British hilarity and inebriety, are synonymous terms.

‘ As it was whispered at table, that I belonged to General Magallon’s Staff, two tall gentlemen came near me ; and one of them, a Colonel of Engineers, who spoke passable French, began to converse with me. He asked me a multitude of questions concerning the Isles of France and Bourbon, their resources, their population, and the means of their defence. I was almost tempted to treat him in the *English style*, by *exaggerating* on every topic of his inquiries. However, I gave him such answers as I thought proper, and conformable to truth. The other gentleman, who had been silent for an hour, then took his turn of the conversation, and, after having again interrogated me, informed me that he was Commodore Elphinstone.

‘ Commodore Elphinstone enjoys a certain degree of reputation in the English Navy, and had served, it seems, with distinction in India. On receiving accounts of the peace, he had left his ship, and taken his passage for England on board an Indiaman. The Commodore had frequently cruized before the Isle of France. He had a high opinion of the talents of General Magallon ; and he told me, that had not the
peace

peace taken place, his government had projected an attack on the Mauritius. He added too, that he was to have directed the execution of it. As he talked to me of all the formidable resources which would have been employed, I told him with politeness, that had the attack taken place, I should have been glad that it should have been conducted by him, because his good offices to the prisoners whom he had frequently taken, had secured him the affection of many people. The Commodore, interpreting my words quite differently from what I meant, thanked me heartily, and, after having frequently repeated, *you are too polite*, he added, *Indeed, after the reduction of the island, I should have done all in my power to have secured good treatment to every body*. Here I stopped him short. "Commodore," said I to him, "you have misunderstood me; my only reason for wishing that you should attack us rather than another, is, that the governor might have it in his power to return to you, when a prisoner, all the civilities which you have shewn to the seamen whom you have taken on different occasions." On this the conversation broke off. My two Englishmen turned their backs on me, and have never seen me since.

M. Bory may thank his stars that the separation was followed by no *ignominious explosions*: and, on taking leave of him, in our turn, we have only to observe, that, with all his talents and acquired information, with all his readiness to engage in bustling or in plodding occupations, and with all his facility in composition, we hope he is still *young*, and are afraid he will always be a *Frenchman*.

ART. XII. *Memoires d'un Temoin de la Revolution: ou Journal des faits qui se sont passés sous ses yeux, et qui ont préparé et fixé la Constitution Française.* Ouvrage Posthume de Jean Sylvain Bailly, Premier President de l'Assemblée Nationale Constituant, Premier Maire de Paris, et Membre des Trois Academies. 8vo. 3 Tom. Paris, 1804.

AMONG the many evils which the French revolution has inflicted on mankind, the most deplorable, perhaps, both in point of extent and of probable duration, consists in the injury which it has done to the cause of rational freedom, and the discredit in which it has involved the principles of political philosophy. The warnings which may be derived from the misfortunes of that country, and the lessons which may still be read in the tragical consequences of her temerity, are memorable, no doubt, and important: but they are such as are presented to us by the history of every period of the world; and the emotions by which they have been impressed, are in this case too violent

to let their import and application be properly distinguished. From the miscarriage of a scheme of frantic innovation, we have conceived an unreasonable and indiscriminating dread of all alteration or reform. The bad success of an attempt to make government perfect, has reconciled us to imperfections that might easily be removed; and the miserable consequences of treating every thing as prejudice and injustice, which could not be reconciled to a system of fantastic equality, has given strength to prejudices, and sanction to abuses, which were gradually wearing away before the progress of reason and philosophy. The French revolution has thrown us back half a century in the course of political improvement; and driven us to cling once more, with superstitious terror, at the feet of those idols from which we had been nearly reclaimed by the lessons of a milder philosophy. When we look round on the wreck and the ruin which the whirlwind has scattered over the prospect before us, we tremble at the rising gale, and shrink even from the wholesome air that stirs the fig leaf on our porch. Terrified and disgusted with the brawls and midnight murders which proceed from intoxication, we are almost inclined to deny ourselves the pleasures of a generous hospitality; and scarcely venture to diffuse the comforts of light or of warmth in our dwellings, when we turn our eyes on the devastation which the flames have committed around us.

The same circumstances which have thus led us to confound what is salutary with what is pernicious in our establishments, have also perverted our judgements as to the characters of those who were connected with these memorable occurrences. The tide of popular favour, which ran at one time with a dangerous and headlong violence to the side of innovation and political experiment, has now set, perhaps too strongly, in an opposite direction; and the same misguiding passions that placed factious and selfish men on a level with patriots and heroes, has now ranked the blameless and the enlightened in the herd of murderers and madmen.

There are two classes of men, in particular, to whom it appears to us that the revolution has thus done injustice, and who have been made to share, in some measure, the infamy of its most detestable agents, in consequence of venial errors, and in spite of extraordinary merits. There are none indeed who made a figure in its more advanced stages, that may not be left, without any great breach of charity, to the vengeance of public opinion: and both the descriptions of persons to whom we have alluded only existed, accordingly, at the period of its commencement. These were the philosophers or speculative men who inculcated

culcated a love of liberty and a desire of reform by their writings and conversation; and the virtuous and moderate, who attempted to *act* upon these principles at the outset of the revolution, and countenanced or suggested those measures by which the ancient frame of the government was eventually dissolved. To confound either of these classes of men with the monsters by whom they were succeeded, it would be necessary to forget that they were in reality their most strenuous opponents, and their earliest victims. If they were instrumental in conjuring up the tempest, we may at least presume that their cooperation was granted in ignorance, since they were the first to fall before it; and can scarcely be supposed to have either foreseen or intended those consequences in which their own ruin was so inevitably involved. That they are chargeable with imprudence and with presumption, may be affirmed, perhaps, without fear of contradiction; though, with regard to many of them, it would be no easy task, perhaps, to point out by what conduct they could have avoided such an imputation; and this charge, it is manifest, ought at any rate to be kept carefully separate from that of guilt or atrocity. Benevolent intentions, though alloyed by vanity, and misguided by ignorance, can never become the objects of the highest moral reprobation; and enthusiasm itself, though it does the work of the demons, ought still to be distinguished from treachery or malice. The knightly adventurer, who broke the chains of the galley slaves purely that they might enjoy their deliverance from bondage, will always be regarded with other feelings than the robber who freed them to recruit the ranks of his banditti.

We have examined in a former article * the extent of the participation which can be fairly imputed to the *philosophers* in the crimes and miseries of the revolution, and endeavoured to ascertain in how far they may be said to have made themselves responsible for its consequences, or to have deserved censure for their exertions: and, acquitting the greater part of any mischievous intention, we found reason, upon that occasion, to conclude, that there was nothing in the conduct of the majority which should expose them to blame, or deprive them of the credit which they would have certainly enjoyed, but for consequences which they could not foresee. For those who, with intentions equally blameless, attempted to carry into execution the projects which had been suggested by the others, and actually engaged in measures which could not fail to terminate in important changes, it will not be easy, we are afraid, to make so satisfactory an apology. What is written may be corrected; but what is done cannot be recalled;

a rash and injudicious publication naturally calls forth an host of answers; and where the subject of discussion is such as excites a very powerful interest, the cause of truth is not always least effectually served by her opponents. But the errors of cabinets and of legislatures have other consequences and other confutations. They are answered by insurrections, and confuted by conspiracies; a paradox which might have been maintained by an author, without any other loss than that of a little leisure, and ink and paper, can only be supported by a minister at the expence of the lives and the liberties of a nation. It is evident, therefore, that the precipitation of a legislator can never admit of the same excuse with that of a speculative inquirer; that the same confidence in his opinions, which justifies the former in maintaining them to the world, will never justify the other in suspending the happiness of his country on the issue of their truth; and that he, in particular, subjects himself to a tremendous responsibility, who voluntarily takes upon himself the new-modelling of an ancient constitution.

We are very much inclined to do justice to the virtuous and enlightened men who abounded in the constituent assembly of France. We believe that the motives of many of them were pure, and their patriotism unaffected: their talents are still more indisputable; but we cannot acquit them of blameable presumption and inexcusable imprudence. There are *three* points, it appears to us, in particular, in which they were bound to have foreseen the consequences of their proceedings.

In the *first* place, the spirit of exasperation, defiance and intimidation, with which, from the beginning, they carried on their opposition to the schemes of the court, the clergy and the nobility, appears to us to have been as impolitic with a view to their ultimate success, as it was suspicious perhaps as to their immediate motives. The parade which they made of their popularity; the support which they submitted to receive from the menaces and acclamations of the mob; the joy which they testified at the desertion of the royal armies; and the anomalous military force, of which they patronized the formation in the city of Paris, were so many preparations for actual hostility, and led almost inevitably to that appeal to force, by which all prospect of establishing an equitable government was finally cut off. Sanguine as the patriots of that assembly undoubtedly were, they might still have been able to remember the most obvious and important lesson in the whole volume of history, that the nation which has recourse to arms for the settlement of its internal affairs, necessarily falls under the iron yoke of a military government in the end; and that nothing but the most evident necessity can justify the lovers of freedom

freedom in forcing it from the hands of their governors. In France, there certainly was no such necessity. The whole weight and strength of the nation was bent upon political improvement and reform. There was no possibility of their being ultimately resisted; and the only danger that was to be apprehended was, that their progress would be too rapid. After the States-General were granted, indeed, it appears to us that the victory of the friends to liberty was ascertained. They could not have gone too slow afterwards; they could not have been satisfied with too little. The great object was to exclude the agency of force, and to leave no pretext for an appeal to violence. Nothing could have stood against the force of reason, which ought to have given way; and from a monarch of the character of Louis XVI. there was no reason to apprehend any attempt to regain, by violence, what he had yielded from principles of philanthropy and conviction. The Third Estate would have *grown* into power, instead of usurping it; and would have gradually compressed the other orders into their proper dimensions, instead of displacing them by a violence that could never be forgiven. Even if the orders had deliberated separately, (as it appears to us they ought clearly to have done), the commons were sure of an ultimate preponderance, and the government of a permanent and incalculable amelioration. Convened in a legislative assembly, and engrossing almost entirely the respect and affections of the whole nation, they would have enjoyed the unlimited liberty of political discussion, and gradually impressed on the government the character of their peculiar principles. By the restoration of the legislative function to the commons of the kingdom, the system was rendered complete, and required only to be put into action, in order to assume all those improvements which necessarily resulted from the increased wealth and intelligence of its representatives.

Of this fair chance of amelioration, the nation was disappointed, chiefly, we are inclined to think, by the needless asperity and injudicious menaces of the popular party. They relied openly upon the strength of their adherents among the populace. If they did not actually encourage them to threats and to acts of violence, they availed themselves at least of those which were committed, to intimidate and depress their opponents; for it is indisputably certain, that the unconditional compliance of the court with all the demands of the constituent assembly, was the result either of actual force, or the dread of its immediate application. This was the inauspicious commencement of the sins and the sufferings of the revolution. Their progress and termination were natural and necessary. The multitude, once allowed to overawe the old government with threats, soon subjected the new government to the same degradation;

tion, and, once permitted to act in arms, came speedily to dictate to those who were assembled to deliberate. As soon as an appeal was made to force, the decision came to be with those by whom force could at all times be commanded. Reason and philosophy were discarded, and mere terror and brute violence in the various forms of proscriptions, insurrections, massacres, and military executions, harassed and distracted the misguided nation, till, by a natural consummation, they fell under the despotic sceptre of a military usurper. These consequences, we conceive, were obvious, and might have been easily foreseen. Nearly half a century had elapsed since they were pointed out in those memorable words of the most profound and philosophical of historians. 'By recent, as well as by antient example, it was become evident, that illegal violence, with whatever pretences it may be covered, and whatever object it may pursue, must inevitably end at last in the arbitrary and despotic government of a single person.*

The *second* inexcusable blunder, of which the Constituent Assembly was guilty, was one equally obvious, and has been more frequently noticed. It was the extreme restlessness and precipitation with which they proceeded to accomplish, in a few weeks, the legislative labours of a century. Their constitution was struck out at a heat, and their measures of reform proposed and adopted like toasts at an election dinner. Within less than six months from the period of their first convocation, they declared the illegality of all the subsisting taxes; they abolished the old constitution of the States-General; they settled the limits of the Royal prerogative, their own inviolability, and the responsibility of ministers. Before they put any one of their projects to the test of experiment, they had adopted such an enormous multitude, as entirely to innovate the condition of the country, and to expose even those which were salutary to misapprehension and miscarriage. From a scheme of reformation so impetuous, and an impatience so puerile, nothing permanent or judicious could be reasonably expected. In legislating for their country, they seem to have forgotten that they were operating on a living and sentient substance, and not on an inert and passive mass, which they might model and compound according to their pleasure or their fancy. Human society, however, is not like a piece of mechanism which may be safely taken to pieces, and put together by the hands of an ordinary artist. It is the work of Nature, and not of man; and has received, from the hands of its Author, an organization that cannot be destroyed.

* Hume's History, chapter LX. at the end. The whole passage is deserving of the most profound meditation.

stroyed without danger to its existence, and certain properties and powers that cannot be altered or suspended by those who may have been entrusted with its management. By studying these properties, and directing those powers, it may be modified and altered to a very considerable extent. But they must be allowed to develop themselves by their internal energy, and to familiarize themselves with their new channel of exertion. A child cannot be stretched out by engines to the stature of a man, nor a man compelled, in a morning, to excel in all the exercises of an athlete. Those into whose hands the destinies of a great nation are committed, should bestow on its reformation at least as much patient observance and as much tender precaution as are displayed by a skilful gardener in his treatment of a sickly plant. He props up those branches that are weak or overloaded, and gradually prunes and reduces those that are too luxuriant: he cuts away what is absolutely rotten and distempered: he stirs the earth about the root, and sprinkles it with water, and waits for the coming spring: he trains the young branch to the right hand or to the left; and leads it, by a gradual and spontaneous progress, to expand or exalt itself, season after season, in the direction which he had previously determined: and thus, in the course of a few summers, he brings it, without injury or compulsion, into that form and proportion which could not with safety have been imposed upon it in a shorter time. The reformers of France applied no such gentle solicitations, and could not wait for the effects of any such preparatory measures, or voluntary developements. They forcibly broke over its lofty boughs, and endeavoured to straighten its crooked joints by violence: they tortured it into symmetry in vain, and shed its life-blood on the earth, in the middle of its scattered branches.

The *third* great danger against which we think it was the duty of the intelligent and virtuous part of the deputies to have provided, was that which arose from the sudden transference of power to the hands of men who had previously no natural or individual influence in the community. This was an evil, indeed, which arose necessarily, in some degree, from the defects of the old government, and from the novelty of the situation in which the country was placed by the convocation of the States-General; but it was materially aggravated by the presumption and improvidence of those enthusiastic legislators, and tended powerfully to produce those disasters by which they were ultimately overwhelmed.

No representative legislature, it appears to us, can ever be respectable or secure, unless it contain within itself a great proportion of those who form the natural aristocracy of the country, and are able, as individuals, to influence the conduct and opinions of the greater part of its inhabitants. Unless the power and weight
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and authority of the assembly, in short, be really made up of the power and weight and authority of the individuals who compose it, the factitious dignity they may derive from their situation can never be of long endurance ; and the dangerous power with which they may be invested, will become the subject of scrambling and contention among the factions of the metropolis, and be employed for any purpose but the general good of the community.

In England, the House of Commons is made up of the individuals who, by birth, by fortune, or by talents, possess singly the greatest influence over the rest of the people. The most certain and the most permanent influence, is that of rank and of riches ; and these are the qualifications, accordingly, which return the greatest number of members. Men submit to be governed by the united will of those, to whose will, as individuals, the greater part of them have been previously accustomed to submit themselves ; and an act of Parliament is revered and obeyed, not because the people are impressed with a constitutional veneration for an institution called a Parliament, but because it has been passed by the authority of those who are recognized as their natural superiors, and by whose influence, as individuals, the same measures might have been enforced over the greater part of the kingdom. Scarcely any new power is acquired, therefore, by the combination of those persons into a legislature : they carry each their share of influence and authority into the senate along with them ; and it is by adding the items of it together, that the influence and authority of the senate itself is made up. From such a senate, therefore, it is obvious that their power can never be wrested, and that it would not even attach to those who might succeed in supplanting them in the legislature, by violence or intrigue, or by any other means than those by which they themselves had originally secured their nomination. In such a state of representation, in short, the influence of the representatives is not borrowed from their office, but the influence of the office is supported by that which is personal to its members ; and Parliament is only regarded as the great depositary of all the authority which formerly existed, in a scattered state, among its members. This authority, therefore, belonging to the men, and not to their places, can neither be lost by them, if they are forced from their places, nor found by those who may supplant them. The Long Parliament, after it was purged by the Independents, and the assemblies that met under that name, during the Protectorate of Cromwell, held the place, and enjoyed all the form of power, that had belonged to their predecessors ; but as they no longer contained those individuals who were able to sway and influence the opinion of the body of the people, they were without respect
or

or authority, and speedily came to be the objects of public derision and contempt.

As the power and authority of a legislature thus constituted, is perfectly secure and inalienable on the one hand, so, on the other, the moderation of its proceedings is guaranteed by a consciousness of the basis upon which this authority is founded. Every individual, being aware of the extent to which his own influence is likely to reach among his constituents and dependants, is anxious that the mandates of the body shall never pass beyond that limit, within which obedience may be easily secured. He will not hazard the loss of his own power, therefore, by any attempt to enlarge that of the legislature; and feeling, at every step, the weight and resistance of the people, the whole assembly proceeds with a due regard to their opinions and prejudices, and can never do any thing very injurious or very distasteful to the majority. From the very nature of the authority with which they are invested, they are in fact consubstantiated with the people for whom they are to legislate. They do not sit loose upon them, like riders on inferior animals, nor speculate nor project experiments upon their welfare, like operators upon a foreign substance. They are the natural organs of a great living body, and are not only warned, by their own feelings, of any injury which they may be tempted to inflict on it, but would become incapable of performing their functions, if they were to proceed far in debilitating the general system.

Such, it appears to us, though delivered perhaps in too abstract and elementary a form, is the just conception of a free representative legislature. Neither the English House of Commons, indeed, nor any assembly of any other nation, ever realized it in all its perfection; but it is in their approximation to such a standard, we conceive, that their excellence and utility will be found to consist; and where the conditions upon which we have insisted are absolutely wanting, the sudden institution of a representative legislature will only be a step to the most frightful disorders. Where it has grown up in a country in which personal liberty and property are tolerably secure, it naturally assumes that form which is most favourable to its beneficial influence, and has a tendency to perpetual improvement, and to the constant amelioration of the condition of the whole society. The difference between a free government and a tyrannical one, consists entirely in the different proportions of the people that are influenced by their *opinion*, or subjugated by *force*. In a large society, opinions can only be reunited by means of representation; and the natural representative is the individual whose example and authority can influence the opinions of the greater part of those in whose behalf he is delegated. This is the natural aristocracy of a civilized nation;

nation; and its legislature is then upon the best possible footing, when it is in the hands of those who answer to that description. The whole people are governed by the laws, exactly as each clan or district of them would have been by the patriarchal authority of an elective and unarmed chieftain; and the lawgivers are not only secure of their places while they can maintain their influence over the people, but are withheld from any rash or injurious measure by the consciousness and feelings of their dependence on this voluntary deference and submission.

If this be at all a just representation of the conditions upon which the respectability and security of a representative legislature must always depend, it will not be difficult to explain how the experiment miscarried so completely, in the case of the French constituent assembly. That assembly, which the enthusiasm of the public, and the misconduct of the privileged orders soon enabled to engross the whole power of the country, consisted almost entirely of persons without name or individual influence, who owed the whole of their consequence to the situation to which they had been elevated, and were not able, as individuals, to have influenced the opinions of one fiftieth part of their countrymen. There was in France, indeed, at this time, no legitimate, wholesome or real aristocracy. The noblesse, who were persecuted for bearing that name, were quite disconnected from the people. Their habits of perpetual residence in the capital, and their total independence of the good opinion of their vassals, had deprived them of any influence over the minds of the lower orders; and the organization of society had not yet enabled the rich manufacturers or proprietors to assume such an influence. The persons sent as deputies to the States-General, therefore, were those chiefly who, by intrigue and boldness, and by professions of uncommon zeal for what were then the great objects of popular pursuit, had been enabled to carry the votes of the electors. A notion of talent, and an opinion that they would be loud and vehement in supporting those requests upon which the people had already come to a decision, were their passports into that assembly. They were sent there to express the particular spirit of the people, and not to give a general pledge of their acquiescence in what might there be enacted. They were not the hereditary patrons of the people, but their hired advocates for a particular pleading. They had no general trust or authority over them, but were chosen as their special messengers, out of a multitude whose influence and pretensions were equally powerful.

When these men found themselves, as it were by accident, in possession of the whole power of the state, and invested with the absolute government of the greatest nation that has existed in modern

dern times, it is not to be wondered at if they forgot the slender ties by which they were bound to their constituents. The powers to which they had succeeded were so infinitely beyond any thing that they had enjoyed in their individual capacity, that it is not surprising if they never thought of exerting them with the same consideration and caution. Instead of the great bases of rank and property, which cannot be transferred by the clamours of the factious, or the caprice of the inconstant, and which serve to ballast and steady the vessel of the state in all its wanderings and disasters, the assembly possessed only the basis of talent or reputation; qualities which depend upon opinion and opportunity, and which may be attributed in the same proportion to an inconvenient multitude at once. The whole legislature may be considered, therefore, as composed of *adventurers*, who had already attained a situation incalculably above their original pretensions, and were now tempted to push their fortune by every means that held out the promise of immediate success. They had nothing, comparatively speaking, to lose, but their places in the assembly, or the influence which they possessed within its walls; and as the authority of the assembly itself depended altogether upon the popularity of its measures, and not upon the intrinsic authority of its members, so it was only to be maintained by a succession of brilliant and imposing resolutions, and by satisfying or outdoing the extravagant wishes and expectations of the most extravagant and sanguine populace that ever existed. For a man to get a lead in such an assembly, it was by no means necessary that he should have previously possessed any influence or authority in the community; that he should be connected with powerful families, or supported by opulent and extensive associations. If he could dazzle and overawe in debate, if he could obtain the acclamations of the mob of Versailles, and make himself familiar to the eyes and the ears of the assembly and its galleries, he was in a fair train for having a great share in the direction of an assembly, exercising absolute sovereignty over thirty millions of men. The prize was too tempting not to attract a multitude of competitors; and the assembly for many months was governed by those who outvied their associates in the impracticable extravagance of their patriotism, and sacrificed most profusely the real interests of the people at the shrine of a precarious popularity.

In this way, the assembly, from the inherent vices of its constitution, ceased to be respectable or useful. The same causes speedily put an end to its security, and converted it into an instrument of destruction.

More popularity was at first the instrument by which this unsteady legislature was governed: but when it became apparent,

that whoever could obtain the direction or command of it, must possess the whole authority of the state, parties became less scrupulous about the means they employed for that purpose, and soon found out that violence and terror were infinitely more effectual and expeditious than persuasion and eloquence. The people at large, who had no attachment to any families or individuals among their delegates, and who contented themselves with idolizing the assembly in general, so long as it passed decrees to their liking, were passive and indifferent spectators of the transference of power which was effected by the pikes of the Parisian multitude, and looked with equal affection upon every successive junta which assumed the management of its deliberations. Having no natural representatives, they felt themselves equally connected with all who exercised the legislative function; and, being destitute of a real aristocracy, were without the means of giving effectual support even to those who might appear to deserve it. Encouraged by this situation of affairs, the most daring, unprincipled, and profligate, proceeded to seize upon the defenceless legislature, and, driving all their antagonists before them by violence or intimidation, entered without opposition upon the supreme functions of government. The arms, however, by which they had been victorious, were capable of being turned against themselves; and those who were envious of their success, or ambitious of their distinction, easily found means to excite discontent among the multitude, now incited to insurrection, and to employ them in pulling down those very individuals whom they had so recently exalted. The disposal of the legislature thus became a prize to be fought for in the clubs and conspiracies and insurrections of a corrupted metropolis; and the institution of a national representative had no other effect, than that of laying the government open to lawless force and flagitious audacity.

It is in this manner, it appears to us, that from the want of a natural and efficient aristocracy to exercise the functions of representative legislators, the National Assembly of France was betrayed into extravagance, and fell a prey to faction; that the institution itself became a source of public misery and disorder, and converted a civilized monarchy first into a sanguinary democracy, and then into a military despotism.

It would be the excess of injustice, we have already said, to impute these disastrous consequences to the moderate and virtuous individuals who sat in the Constituent Assembly; but if it be admitted that they might have been easily foreseen, it will not be easy to exculpate them from the charge of very blamable imprudence. It would be still more difficult indeed to point

point out any course of conduct by which those dangers might have been entirely avoided; but they would undoubtedly have been less formidable, if the enlightened members of the Third Estate had endeavoured to form a party with the more liberal and popular among the nobility; if they had associated to themselves a greater number of those to whose persons a certain degree of influence was attached, from their fortune, their age, or their official situation; if, instead of grasping presumptuously at the exclusive direction of the national councils, and arrogating every thing on the credit of their zealous patriotism and inexperienced abilities, they had sought to strengthen themselves by an alliance with what was respectable in the existing establishments, and attached themselves at first as disciples to those whom they expected speedily to outgrow and eclipse.

Upon a review of the whole matter, it seems impossible to acquit those of the revolutionary patriots, whose intentions are admitted to be pure, of great precipitation, presumption, and imprudence. Apologies may be found for them, perhaps, in the inexperience which was incident to their situation; in their constant apprehension of being separated before their task was accomplished; in the exasperation which was excited by the injudicious proceedings of the cabinet; and in the intoxication which naturally resulted from the magnitude of their early triumph, and the noise and resounding of their popularity. But the errors into which they fell were inexcusable, we think, in politicians of the 18th century; and while we pity their sufferings, and admire their genius, we cannot feel any respect for their wisdom, or any surprise at their miscarriage.

The preceding train of reflection was irresistibly suggested to us by the title and the contents of the volumes now before us. Among the virtuous members of the first Assembly, there was no one who stood higher than Bailly. As a scholar and a man of science, he had long stood in the very first rank of celebrity; his private morals were not only irreproachable, but exemplary; and his character and dispositions had always been remarkable for gentleness, moderation, and philanthropy. Drawn unconsciously, if we may believe his own account, into public life, rather than impelled into it by any movement of ambition, he participated in the enthusiasm, and in the imprudence, from which no one seemed at that time to be exempted; and in spite of an early retreat, speedily suffered that fate by which all the well-meaning were destined to expiate their errors. His popularity was at one time equal to that of any of the idols of the day; and if it was gained by some degree of blameable indulgence and unjustifiable zeal, it was forfeited at least by a reso-

lute opposition to disorder, and a meritorious perseverance in the discharge of his duty. Even in the days of his greatest triumph, and during the prevalence of his gayest dreams of regeneration, he never seems to have violated the habitual gentleness of his manners, or to have conducted himself with any degree of acrimony towards his opponents. His character indeed appears to have been full of conciliation and mildness; nor is there a name perhaps in the whole annals of the revolution with which the praise of unaffected philanthropy may be more safely associated.

These memoirs include but a very small portion of the political life of their author. They begin with his first nomination as elector for the city of Paris, in March 1789, and end with an account of his proceedings as Mayor of Paris, up to October in the same year. His account of the transactions of these six months, which is exhibited in the form of a journal, with abundance of reflections and remarks, fills three octavo volumes of close printing, and is composed in a style so very diffuse and redundant, as scarcely to let us regret that he did not accomplish the design which he announces of continuing them through the thirty-one months, which would have conducted him to the expiration of his mayoralty. Along with a number of details that are extremely fatiguing and insignificant, they contain a variety of interesting particulars, and are written, throughout, with a certain air of veracity and simplicity which makes it impossible to refuse credit to the writer. It is upon this internal evidence indeed, that we are left to rely for the authenticity of the whole publication; for it is thrust into the world without one word of preface or explanation, without the name of an editor, or any account of the manner in which the manuscript was preserved, or the reasons for which it is published. There are traits, however, we think, scattered through the whole work, which leave no doubt of its being genuine; and though we are not aware that it discloses any thing of importance that was not formerly known, the narrative seems entitled to our attention, both as the production of an eyewitness of undoubted credibility, and as containing the sentiments of a man of virtue and genius, upon some of the most momentous transactions which history will have to commemorate.

M. Bailly had lived to the age of fifty, entirely occupied and delighted with his literary and scientific pursuits, and without the slightest disposition to connect himself with the political affairs of his country. His first anticipation of the revolution is expressed in the following words.

In December 1786, I dined with the Marechal de Beauveau, and there,

there, for the first time, heard it affirmed that it was determined to call an assembly of the *Notables*. I was struck with this intelligence; and immediately anticipated the most important consequences—a change in the condition of things, and even in the form of the government. I did not indeed foresee the revolution exactly as it has happened, which I suppose no man then did: but the deplorable state of the finances sufficiently warranted my conjecture. The poverty of government had made it feeble and dependent; and the subject obtained from these circumstances an advantage of which I had no doubt it would avail itself. The convocation of an assembly, for the purpose of giving advice, would necessarily direct all eyes to the resources and administration of the kingdom; and when, after a long sleep, or rather a long absence, one begins to look into one's affairs, and to perceive how greatly they have been neglected, it is natural to remember who is best entitled to put them in order. I foresaw then, from that moment, not exactly a revolution indeed, but a series of important changes likely to turn to the advantage of the country. In an enlightened age, if reason be once called in, she can scarcely fail to predominate.*

The *Notables*, however, did nothing; and the States-General themselves might have been convoked, M. Bailly seems to think, with little greater effect, if time had not been given between the first annunciation of the plan and its final execution, to prepare and enlighten mens minds by an infinite variety of publications on the subject. We extract the following passage with pleasure, both for its truth, and for the honour it does to M. Bailly's feelings.

‘It was by this training that the nation was prepared to recover, at the States-General, both the rights of the people and the privileges of the third order. But it should never be forgotten how much was owing on that occasion both to M. Necker and to the King—to the minister who proposed, and to the monarch who consented to that expedient. It is to them that we are indebted for the opportunity of regenerating the kingdom. This has been too little remembered. No tendency to despotism ever entered into the character of the King: he never desired any thing but the happiness of his people; and it was by this feeling alone that he was ever misled. If he has ever been prevailed on to make a rash exercise of his authority, it has only been by persuading him that he was conferring a benefit, or avoiding a disaster, and by shewing him, in perspective, the prosperity and satisfaction of the whole nation. I am perfectly convinced that he never valued his authority, or made any exertion to retain it, except as the basis and the pledge of general tranquillity and order. In considering the causes of reform, we ought then to say, that the first and the chief was the character of Louis XVI. With a Sovereign of less benevolence, or a minister of less capacity, there would have been no chance of a revolution.’

* It is but justice to M. Bailly to observe, that throughout the whole of these memoirs, he uniformly speaks of the King in the

same terms of affection and esteem as in the passage we have just recited ; and as this work was composed in the very heat and excess of the republican frenzy, there is not the slightest reason, independent of his general character, for calling in question his sincerity.

Preparatory to the convocation of the States, there was much talking of course in Paris about those who should be elected deputies ; and a variety of lists were handed about in every circle. The name of M. Bailly did not appear in any of these ; and it never entered into his imagination, he assures us, that such an honour was in contemplation for him. The Abbé Maury, indeed, and another friend of his, had predicted that he would be returned for Paris ; but he gave no credit to their prophecies. He resolved, however, to attend the meeting of his district, in which the electors were chosen.

‘ I had walked in that morning,’ he observes, ‘ from my residence at Chaillot, and sat down to rest myself on the terrace of the *Feuillans*. A young man, with whom I was not acquainted, passed by, and said, “ You are going to the meeting of the district ; you will be named an elector.” I thanked him for his good opinion, and thought no more of the matter. I mention these trifles, to shew that I was really carried on by circumstances to the places I have reached, and that without any exertion of my own. No one can say that I ever asked a vote from him, or even shewed any desire to attain the honours that have been put upon me. I consider myself, therefore, as a sure proof that the highest situations may be obtained without solicitation or intrigue ; and I mention it for the consolation and encouragement of those who might despair of succeeding in the career of moderation and integrity.’

Within a few months after writing these sentences, the author was dragged from his peaceful retreat to a loathsome prison, and, soon after, immolated by the fury of that populace, to whose capricious favour he had been indebted for his dangerous exaltation.

M. Bailly was nominated an elector for the district of *Les Feuillans*, and joined the general meeting of the electors of Paris, consisting of more than three hundred, in the Hotel de Ville, where they were busily employed in preparing the *cabiers* or instructions for the direction of their deputies. M. Bailly enlarges with much complacency on the proceedings of this assembly, and pays many high compliments to the talents and address of persons whose names are altogether unknown to the public. It was reported at one time, that no deputy should be returned who was any way connected with government ; and as the greater part of M. Bailly's fortune consisted in the pensions which had been bestowed upon him as a man of letters, he considered his exclusion as inevitable. He was relieved, he says, by this conviction, from a state of considerable agitation.

‘ I had no faith, indeed,’ he says, ‘ in the dangers which terrified my wife ; but I was attached to the tranquillity and mediocrity of my former condition ; and I was of opinion, that the States-General could do very well without me. Destitute of talents for oratory, and overwhelmed with timidity, I thought it would not be difficult to find in another the same zeal and integrity united with more suitable qualifications.’

In spite of all this, he was nominated the first deputy for the city of Paris, and takes that opportunity to make a variety of reflections on the share which men of letters ought to assume in political affairs, and on the consequences of their more active interference. We can only afford to lay the conclusion of these remarks before our readers. It affords a key, we think, to every thing that has been censured in his conduct, and exhibits a curious picture of the inconsistency and fanaticism of a philosopher.

‘ When a great people begin to think seriously of liberty, nothing can prevent their attaining it. The philosopher calculates the period at which this consummation will naturally take place, and is anxious, above all things, that it should not be precipitated. His calculations include also the how much and the how little of the liberty that ought to be accorded ; and he is satisfied, that it is better to rest contented with something less than the maximum, than to purchase it at the expence of public tranquillity, and the lives of his fellow-citizens. If the ardent spirits that consider themselves as the only lawful children of freedom, brand such calculators with the name of bastards, they cannot very well deny, that there is reason at least in their proceedings. I have always thought, and still think, that a little more of this philosophical spirit would have been of no disadvantage to the Assembly. Such have ever been my principles. My conduct has been dictated by the duties of the places in which I found myself. I think no more of my own reason, from the moment that of the nation has declared itself. The highest of all laws is the authenticated will of the community ; and from the time that it has been expressed, I have consulted nothing but that sovereign will. In all the offices I have borne, I have considered myself as the servant of the country, and yielded her my implicit obedience. The result has been a constitution, which, in spite of its faults, must be admitted to be a masterpiece of wisdom.’

If the whole wisdom of the philosophers consists in following implicitly the dictates of the multitude who are not philosophers, we really do not perceive what benefit their country is to derive from their cooperation.

The first proceedings of the Assembly are pretty well known to all who take any interest in the history of the revolution ; and we do not find, in M. Bailly’s account of them, any thing very peculiar or important. He gives a copious extract of the debates with the clergy and noblesse about verifying their powers, and deliberating in common, or in separate orders. The second week of their sitting, and before those conferences were brought to a conclusion,

conclusion, he was elected Dean or President of the Assembly; an event which, he affirms, occasioned him the most lively astonishment, terror, and affliction. We will not trouble our readers with an account of all the embarrassments and difficulties he met with in the discharge of this office, nor with any observations on the tendency of the resolutions that were taken at this time by the Assembly. The tumultuary debates of the Convention were sufficiently familiar to our memory; but we really were not aware that the deportment of the Constituent Assembly had been so violent and unbecoming. Upon a question which occurred on the 16th June, about proceeding immediately to constitute the Assembly, M. Bailly observes,

‘ They had just begun to call over the names by my direction, when they were interrupted by cries and clamours, which made it impossible to hear any thing. They paused for a moment; but, as soon as the reading of the list was begun again, they were resumed more violently than ever. The scene of that evening gave me the impression of two armies on the eve of battle. A large table went across the hall. Before me, were those who insisted upon proceeding to the vote, to the number of three or four hundred. Behind were their opponents, about a hundred in number, all standing up, and crying and bellowing louder than the more numerous band of their antagonists. From this party I was assailed, with the most clamorous entreaties, to put an end to the sitting; and tumultuous cries and menaces resounded from all quarters of the hall. The large table was fortunately between the contending parties; and, but for that obstacle, I am persuaded that several of them would have come to blows.’

After some compliments to his own steadiness and tranquillity, M. Bailly thinks proper, in the true tone of French enthusiasm, to observe,

‘ The Assembly never was more truly grand: and presented, indeed, at that moment, a most august and imposing spectacle. The president, calm and tranquil, and the great majority of its members in a profound silence and resolute serenity, which the cries and violence of their opponents could not disturb,’ &c.

M. Bailly gives a very animated account of the famous decree of constitution adopted on the 17th June, on the motion of the Abbé Syeyes; upon every paragraph of which he has made an ample and encomiastic commentary. The most remarkable part of it is that by which, without any reference to the royal assent, it declares all the existing taxes illegal, and only permits them to be levied till the last day of the sitting of the Assembly.

The exclusion of the deputies from their hall, and the celebrated match taken in the tennis-court, are among the most important of the proceedings detailed in these memoirs. These transactions are narrated with great animation; but as the substance of them

is already familiar to the public, we shall not transcribe any part of the narrative. The following observations, which M. Bailly annexes, indicate the sanguine disposition of the Assembly, at the same time that they illustrate, in a remarkable manner, that unjustifiable tendency to intimidation and defiance which we have attributed to it in our introductory observations.

‘ By this resolution, the Assembly provided for its own security, took under its protection the interests of the whole kingdom, and insured to it that constitution upon which it was just proceeding to deliberate. It cannot be doubted that there was a desire in the cabinet to disperse this assembly, now become too formidable and independent; that preparations were actually making for that purpose; and that it was in the prospect of such a measure, and of a great change in the ministry, that troops were assembled in considerable numbers all round Paris and Versailles. It is equally certain, that by the measure now adopted by the Assembly, their dispersion was become impracticable. If an order so daring could have been issued, it would not have been executed. The example of that day demonstrated that, if their hall was shut up, they would assemble elsewhere. If they were driven from Versailles, they would repair to Paris, or to some other city. How, indeed, were they to have been prevented? A few members might be imprisoned, but how could they have shut up six hundred? Those who were left at liberty would still have been the National Assembly; and the violence committed on their associates would have raised up the whole kingdom in arms.’

It is not easy to say, whether the ministry deserve the greatest censure for the weakness and irresolution of their measures, or the bad grace with which they successively abandoned them. Instead of holding out an appearance of cordiality, while they were resolute in the substantial part of their opposition, they harassed and exasperated the assembly by a succession of petty vexations, while they yielded up every thing that was worthy of a serious contention. They omitted the common phraseology of respect in their letters to the president: they detained the members in the rain till the other orders had taken their places; and after they were informed that the majority of the clergy had determined to join them, they blocked up the doors of internal communication between their places of meeting, and subjected them to the necessity of performing a long circuit through the streets, before the junction could be effected. M. Bailly justly observes, that these puerile proceedings brought them into contempt with the judicious, and exasperated the prejudices of the intemperate.

There is a very full account of the proceedings of the Royal Sessions, 23d June. It concluded, as our readers may remember, with an injunction to the three orders to retire each to their own hall, and to take the subjects proposed by the Sovereign into their immediate

immediate consideration. The clergy and the nobility obeyed, but the commons remained in their places. As M. Bailly's behaviour, upon this occasion, has been severely censured, and it rather appears in some measure misrepresented, we think it but fair to lay his own account of it before the public.

'When the other orders had gone out, the grand-master of the ceremonies came up to me, and said—"Sir, you have heard the orders of the King?" I answered, "Sir, the Assembly, at its last sitting, adjourned till after the Royal Sessions. It is not in my power to dismiss it till it has deliberated on a motion to that effect." He rejoined, "Is this your answer; and may I communicate it as such to the King?" "Yes, Sir," I replied; and, turning to some of my colleagues who were near me, I added, "The National Assembly, I conceive, can receive no orders." It has been confidently asserted, that I addressed these last words to the grand-master: but my official answer to his message was exactly as I have stated. I had too great a respect for the King to transmit to him any other answer; and I knew too well what was due from the president to the Assembly, to commit it to such an extent without its authority. Immediately after, Mirabeau took up the discourse; and addressing himself with much passion to the grand-master, said very nearly what is commonly ascribed to him: "Go, Sir, and tell those who sent you, that the bayonets of their soldiers are of no avail against the will of the nation." This answer has been loudly extolled; but, in truth, it was not an answer at all, but a voluntary and very improper apostrophe from an individual, who had no right to speak for the Assembly upon such an occasion. If it had been an answer, it was intemperate beyond all endurance. No one had spoken of bayonets—no one had hinted at force—nothing approaching to a menace had issued from the lips of M. De Brezé: he reminded us, according to his duty, of the King's orders. It was another question, indeed, whether the King had a right to give such an order; and the Assembly, in the issue of its deliberation, determined that he had not: but, in the mean time I could only answer, that it could not separate without deliberating on the propriety of that measure; and I flatter myself, that I acquitted myself of my duty in making that answer.'

There is a good deal of declamation and weak reasoning in praise and in defence of the violent proceedings of the Assembly: and yet M. Bailly himself admits that, ten years before, the propositions of the King would have been received with enthusiasm, and seems so well convinced of there being no necessity for precipitation, that he said at the table of the Duc de Nivernois, 'The consolidation of the three orders will infallibly take place by and by. It may be during the sitting of the present Assembly, or it may not be till the next; but nothing can prevent its accomplishment.' Talking of the apprehensions entertained of force being employed to overcome the refractory disposition of the Assembly,

Assembly, he resumes that tone of defiance which we have already reprobated, and says,

‘ But where was the force they were to employ ? Were they sure the soldiery would obey them ? The event has proved that they would not. What then could they have tried ? Imprisonment ! But imprisonments cannot last for ever, and justice is at their elbow. They may have wished to employ such expedients ; but they had not courage to make the experiment. Besides, they might deceive the King as to operations which were dubious in their consequences ; but violence could not be dissembled, and every scheme of that kind was the object of his aversion, and I am confident would have been rejected by him without the smallest hesitation. ’

In following the progress of this narrative, nothing has struck us more than the singular address and talent for affairs, which is exhibited by men educated in habits the most unfavourable for their acquisition. M. Bailly himself is a most remarkable instance of this. Though constitutionally bashful and timid, and drawn, at the age of fifty, from a scientific retirement, and pursuits the most foreign from the intrigues of courts, or the dissensions of a popular assembly, it is astonishing with what management and sagacity he conducts himself in situations of the greatest delicacy and importance. His deportment, upon the arrival of the noblesse and the minority of the clergy, is a masterpiece of temper and of prudence: but the most remarkable display of address, perhaps, is in the account which he gives of a conference held in the apartments of the keeper of the seals, for the purpose of persuading him, that, after the reunion of the three orders, the presidency should belong to the head of the ecclesiastics. M. Bailly, without assistance or preparation, had to maintain the rights of the third estate against the Duc de Croy and the Keeper on the part of the nobles, and the Cardinal of Rochefoucauld and the Archbishop of Aix on that of the clergy ; and appears, from his own statement at least, to have replied to all their arguments with so much prudence, acuteness, and politeness, that he reduced them all to silence, and obtained an amicable resignation of their pretensions.

In the second volume, we have a pretty full detail of the debates, motions, and remonstrances occasioned by the assemblage of the troops in the vicinity of the metropolis ; and of the deliberations of the Assembly, with regard to its declaration of the rights of man. Upon this latter subject, M. Bailly observes with more sobriety than belonged to his associates—

‘ It is no doubt a fine philosophical idea, to make a declaration of the rights of man the foundation of a political constitution. But such metaphysical notions bewilder the multitude more than they enlighten it, and tend to make every man forget his duty to his neighbour, in thinking only of himself. To inform a people of its rights, before
making

making them familiar with their duties, leads naturally to the abuse of liberty, and to the usurpation of individuals. It is like opening a passage for the torrent, before a channel has been prepared to receive, or banks to direct it. Since the time of which I am speaking, I have frequently experienced the inconvenience of such a practice, and groaned over the evils it has occasioned.'

In another place he has the following very remarkable expressions.

'In strictness of principle, the sovereignty, no doubt, resides in the nation; every power and every right proceeds from the people; and as soon as its rights are recovered, they may be exercised to their fullest extent. A nation who recovers them after an interval of fourteen centuries, is on a level, in point of right, with one which was formed but yesterday, and has never suffered from their privation. So stands the question as to right,—but how is it as to prudence? Rights can only be made effectual or supported by force: and we should be able to calculate exactly both the force by which they may be asserted, and that by which they may be overcome. We have a right to reclaim them entire; but, by such an attempt, do we not hazard the loss of all? and might it not be better to make a compromise between newly recovered rights, and ancient usurpations and establishments? These are great questions; and they can only be determined by the event. For the system of compromise, there is the authority of the English, who consecrated the prerogative of the Sovereign, and the privileges of the barons, at the same time that they asserted the rights of the people. We have ventured deeper into the principle: if we succeed, we shall be amply justified, and shall eclipse the glory of our neighbours: if we do not succeed, we shall have lost an opportunity which can never recur, and thrown away the happiness of our country.'

M. Bailly was with the Assembly at Versailles, during the tumults that preceded and attended the capture of the Bastille on the 14th July, and he gives a very striking and picturesque representation of the anxieties and fears of the deputies, listening with their ears on the ground, to the distant sound of artillery, and alternately inflamed and alarmed by the contradictory reports that were every moment received from the metropolis. After the melancholy news of the insurrection had been confirmed, the Assembly, which continued its sittings, at this crisis, day and night, without intermission, was waiting in mournful silence for some farther intelligence, when a nobleman, with whom he was not acquainted, came up to M. Bailly, and taking him aside to a gallery, informed him that he had just parted from the Count d'Artois, and had taken the liberty of suggesting to him that it would be of the greatest advantage to the public, if the King would come to the Assembly, and make a public profession of his confidence in it, and of his good intentions towards the people: that the Count had been struck with the proposal, and that he had come to M. Bailly

Bailly to concert with him what it would be proper for the King to say if the plan should be adopted. M. Bailly immediately made out the sketch of an address which the nobleman said he would put into the hands of the Count. On the following day, accordingly, the King entered without guards or any attendant but his brothers, and, standing up uncovered, addressed to the Assembly that affectionate and pathetic speech, which diffused all over France a glow of loyalty and devotion. M. Bailly informs us with great candour, that it was *not* the speech which he had furnished the night before, and that it was infinitely more touching and natural. The Assembly, after a burst of acclamation and applause, and filled with gratitude and love, rose all at once, without order or decree, at the departure of their Sovereign, and in a body accompanied him from the hall to the gates of the palace, 'to which he returned,' says M. Bailly, 'on foot, with the love of his people for his guard, and their representatives for his escort.' We cannot deny ourselves the pleasure of extracting M. Bailly's account of this triumphal procession. It is one of the few scenes upon which we can dwell with satisfaction, and makes us share for a moment in an enthusiasm which was not always at enmity with wisdom.

'The King proceeded slowly on foot, without guards or attendance. About twenty of the members formed a ring round him, that he might not be incommoded by the populace, who pressed in immense numbers around us. The trees—the gates—the walls—the statues on our way, were all clustered over with spectators. The procession lasted an hour and a half; the weather was bright and beautiful; peace was restored to all hearts, and joy to every countenance. The King inhaled that joy as he proceeded, mingled with the benedictions of the people. The cry of "Vive le Roi!" resounded, without intermission, up to the very door of the palace, where the Queen appeared in a balcony, with the Dauphin in her arms, and held him out to the multitude, who wept with affection and delight. Never was procession so beautiful, so grand, or so affecting. The people cried, "He has no need for any other guards!" And M. Villeroi answered, "I may resign my office, for the nation has taken the duty of it on itself." On the road, M. De Vienne observed to the King, that the walk was long and fatiguing; but the Monarch, pointing to his vast and delighted escort, replied, "O, no—not at all fatiguing." Some one observed, that these acclamations did justice to his character; and he answered, "How could they ever have misconceived me?"—It is even said, that a young woman of the lower order, burst through the ring of Deputies, and clasped him in her arms, and that he would not allow her to be removed; but said, "Do, let her alone." When we arrived at the palace, the Swiss band struck up the tune, "Where can you be so well as in the midst of your children?" an allusion which was received with a thunder of acclamation. I returned to the Assembly overcome with heat and fatigue, my clothes dripping

dripping with the exertions I had made to keep off the crowd from the person of the king; but I was insensible to every thing but pleasure, and intoxicated with the joy I had witnessed and experienced.

The most manifest usurpation, it appears to us, that signalized this eventful period, was that of the electors of the city of Paris, who, instead of separating after the nomination of their deputies, held regular meetings, with a president and secretaries, at the Hotel de Ville, and, in this moment of distraction, assumed the absolute government of the metropolis. They established the national guards to the number of more than 60,000 men, without any authority, either from the King or the Assembly, and negotiated both with the governor of the Bastille and with the insurgents, whom they could not dissuade from its assault. They also ordered the Bastille to be demolished, and went so far, at the instigation of M. Necker, as to publish a general amnesty, which the Assembly, however, refused to ratify. On the day after the King's visit to the Assembly, M. Bailly paid a visit to this body, and by them and the populace together, he was then elevated to the dignity of mayor; a nomination, however, that was afterwards ratified by the Sovereign. It has been frequently surmised, that this dignity was conferred on him by the influence of the Duke of Orleans; though it appears perfectly evident, both from these memoirs, and from every other authority, that M. Bailly had no sort of connexion with that detestable faction. He does not even seem to be aware of its existence or extent, unless he may be thought to have shadowed it out in the following general expressions.

'Succeeding events have convinced me, that from this time forward, an invisible agent has been at work in the city, who is not contented with the destruction of arbitrary power, or the liberty asserted on the 13th and 14th of July, and who has ever since scattered abroad all sorts of calumnies and falsehoods, to propagate discontent, suspicion and disorder. This agent has not yet suspended his activity. To have carried on his abominable designs as he has done, he must have had a multitude of tools, considerable talents, and vast resources. The secret will one day be discovered, and the infernal genius and his ministering spirits detected.'

The succeeding events recorded in these volumes, scarcely require any particular notice. If we except a pathetic and animated account of the outrages attending the massacre of Messrs Berthier and Foulon, to prevent which M. Bailly appears to have made the most strenuous exertions, they relate principally to the measures which he adopted for securing a supply of provisions for the capital, and for the arrangement of its police. We regret very much that they do not include the transactions of the 6th of October, and other succeeding days, in which M. Bailly's conduct

duct has been severely censured, and as to the details of which we are not yet in possession of any very authentic intelligence. From the affection and respect with which he uniformly speaks of the King, we are persuaded that a complete statement of his proceedings would exculpate him from any charge of insolence or cruelty. In the Appendix, along with a number of other documents relating to that portion of the Memoirs which do not seem to have been completed, there is a copy of the address with which he received the Monarch upon his arrival in Paris after the disgraceful disorders of the 5th and 6th of October. The heaviest accusation that has ever been brought against M. Bailly is, that in that speech he called the 6th of October 'a beautiful day;' and if he had applied such an epithet to it, in allusion to the crimes and outrages by which it had been distinguished, he would certainly have deserved the severest reprobation. Upon looking into the speech, however, which was delivered by him in his official capacity, on his Majesty's appearance within his jurisdiction, we find that he alludes only to the happy event of the King's arrival in the metropolis, to which, he affirms, his presence would infallibly restore tranquillity and order. The speech is in the highest degree complimentary and respectful; nor can we believe that M. Bailly, who unquestionably had no share in the outrages of that day, and probably was not then informed of their extent, could possibly intend to express any approbation of proceedings so contradictory to his principles and habits.

Upon the whole, though the details of this book are sometimes a little redundant, we have perused it with considerable satisfaction. The interest which it excites, however, arises more from the dramatic vivacity of the representation, and from the constant interposition of the sentiments and passions of an actor, than from the importance of the new information it contains. M. Bailly seems to have been instructed in none of the secrets of the revolution, and to have known nothing more of the agency by which it was effected, than could be gathered from the public proceedings of the Assembly and of the municipality. He was engaged in no conspiracies, and but imperfectly informed, it would appear, of any thing that was done beyond the precincts of the metropolis. From such a writer we can look for no new lights—no corrections of what has been misrepresented, or elucidations of what is mysterious. The secret history of the revolution certainly is not yet completely understood, and the chance is that it never will; since the disclosure can only be made, upon the supposition that some of the confidential agents of Orleans have escaped the daggers of their associates, and acquired honesty enough to tell the truth.

ART. XIII. *Sur le Grand Dessein attribué à Henri IV. Roi de France.* Par M. de Chambrier. (From *Memoires de l'Academie Royale des Sciences & Belles Lettres de Berlin.* 1804.)

AMONG the various problems which have exercised the ingenuity, and displayed the learning of historical critics, none has received a degree of attention less proportioned to its importance, than the very interesting subject of the present memoir. That a prince, of whose fame the annals of Europe are full, stopped in the midst of his victorious career to form a project which should secure the future peace of the world; that he actually devoted the rest of his days to the accomplishment of this undertaking, and even made some progress in surmounting the obstacles with which it was attended, is a statement at once so important and so strange, that we might have expected, before the present day, a careful examination of its authenticity. Whether it be, that there is in antiquaries and critics a natural predilection for the trifling, or that the investigation of the subject required talents and knowledge which are seldom coupled with skill in points and particles, it is certain that the question remains undecided; and M. Chambrier, in the paper now before us, displays little more than his good will to the prosecution of the inquiry. In hopes of directing the attention of abler persons to so curious a matter, and for the purpose of suggesting a few remarks upon one part of the question, we shall shortly state the substance of this memoir, beginning with the plan itself, of which all have heard the name, and many lamented the failure, in equal ignorance of its motives and its design. As often as the balance of power is mentioned, men recur to the chimerical project of Henry IV., and declaim upon the absurdity of attempting any similar arrangement, because the impracticability of what they term 'the most perfect form of the system' is admitted. It may be worth while, however, to examine whether this famous scheme bears any relation to the external policy of modern times, known by the name of the balancing system; and whether it is, in any of its parts, founded upon the sage and virtuous principles by which that system is supported. Nor is any discussion without its advantages, which leads us to review a character so highly rated as that of Henry the Great, and to examine impartially, by one important test, his claims to that ~~renown~~ for political wisdom and integrity, which mankind have, with a rare unanimity, been so zealous to bestow on his memory.

Henry

Henry is said, immediately after the great victory at Ivry, to have formed this plan, denominated by M. Chambrier 'the most vast, singular, and advantageous for all Europe, which had ever been conceived.' In order to estimate its claims to these magnificent appellations, the following sketch may be consulted.

Europe was suddenly to be formed into a great commonwealth, under the imposing title of the '*Christian Republic*.' The Emperor of Germany was to be placed at its head, with high authority over the federacy, and increased powers in his private capacity of Germanic chief. The extent of his prerogatives was considered as attended with little danger, for this very satisfactory reason, that the plan proposed his office to be always conferred *according to merit*. In order to secure this excellent provision, Henry conceived the *novel* expedient of making the imperial dignity elective, and added a prohibition against conferring it twice in succession upon the same family. He farther thought proper to settle that it should be given first to the house of Bavaria; and that this natural rival of the Austrian dynasty should receive, in perpetuity, all the neighbouring provinces of the natural enemy of France. The house of Austria was further to lose all its hereditary possessions in Europe, except Spain; and what is still more pleasant, the King of France, who proposed this idea, is said 'only to have reserved for himself the glory of conceiving' the grand and virtuous project. In return for these sacrifices, Austria was presented with the absolute and entire possession of every inhabited country out of Europe, either then known, or afterwards discovered; the only restriction upon her colonial supremacy, being a reservation in favour of free commerce. Men have laughed as much at the famous bull of Paul, as they have admired the plan of Henry; yet there was nothing half so absurd in the Pope's grant of the new world, which began and ended in a statement of abstract right, as this provision of the French monarch by which the same right was to be forcibly maintained, and Europe was to conquer all the other parts of the world for the benefit of that power which it had violently stript of its lawful possessions at home.

The possessions of Austria were to be partly given away, partly revolutionized; and various new states and unions of states were to arise from the fragments of that great monarchy, on the confines of the empire. A republic was to be formed of the Netherlands together with Holland. Hungary and Bohemia were designed for two elective monarchies; the choice being vested in the Pope and the six hereditary potentates of France, Spain, England, Sweden, Denmark, and Lombardy. Poland was to be made elective in the same sense of the word;

and each of the three elective monarchies was to be increased by new poſſeſſions forcibly taken from other powers. The ſucceſſion of Cleves was to be portioned out among ſuch of the Germanic princes as France then favoured, and Auſtria oppoſed. The Pope was to have all Naples, and to be made chief of the Italian Federal Republic, a body compoſed of all the Italian ſtates except Lombardy and the Milanefe, which were reſerved for the kingdom of the Duke of Savoy. Sicily, a member of this republic, was deſigned as a douceur for Venice; and Switzerland was to receive Franche-Comté and Alſace with a permanent oligarchical conſtitution.

The *Chriſtian Republic*, thus formed by plunder and uſurpation, was to begin its operations by perſecution. Three different creeds were to be permitted, and all ſects inſtantly extinguished. Moreover, every power not profeſſing the Chriſtian faith was to be expelled from Europe; and the Czar of Muſcovy being a believer, was to be offered a corner in the grand federation, which, if he reſuſed, he was immediately to be ſtript of his European dominions, and ſent off to Aſia after the grand ſignior. A good deal has been ſaid of the balance of religion, in conſequence of the ſpiritual part of this project; and truly, if the phraſe has any meaning, its ſignification is as difficult to be diſcovered as the connexion between the temporal arrangements of the plan and the balance of power.

The means by which the ſcheme was to be carried into effect next deſerve notice. Main force was the great ſecret; and the overtures being made to certain powers, it was propoſed, that a large army ſhould inſtantly be raiſed by ſuch as agreed to the meaſure, for the purpoſe of compelling the reſt to ſubmit. The overtures were accordingly made, and much aſtoniſhment has been expreſſed at their favourable reception. We are told, that moſt of the European potentates came readily into the ſcheme, and that a certain proſpect was obtained of raiſing at leaſt half the forces which ſhould be required for the whole ſervice of the union. This has been denominated the moſt wonderful part of the ſtory; and thoſe who can ſcarcely believe that a prince of Henry's wiſdom ſeriouſly formed ſo chimerical a plan, are ſtill leſs diſpoſed to admit that he found the obſtacles to its execution ſo eaſily ſurmounted. But let us conſider whether there be really any great wonder in any part of the ſtatement,—whether the project was marked by a liberality and diſintereſtedneſs of mind too high for a prince in the moment of victory,—whether the prominent feature of the plan was romantic virtue, or that ambition after impoſſibilities, which we denominate ſplendid folly, or only a more ordinary love of aggrandizement, couched under a pretext of heroism
too

too thin to conceal it; and then let us ask, whether the reception which the proposals are said to have met with, be not precisely such as might have been expected from their own nature, and the circumstances of those to whom they were addressed. There is no task more instructive than that of destroying the wonders of history, and reconciling the strange passages of great men's lives with their general character and situation. In the present instance, the labour is trifling; a very slight glance over the foregoing outlines of the scheme, will be sufficient to strip it of the marvellous in which historians have clothed it, and to reduce it into the rank of the very ordinary occurrences in the cabinets of great princes.

The plan of Henry IV. was evidently a scheme for the utter extirpation of all those principles which modern politicians hold to be the most virtuous and enlightened. Under the name of perpetual peace, a name in which every treaty is included, the whole continent of Europe was to be instantly involved in a war, compared with which, no former hostility could be called general or unsparing. In order to alter the names and the numbers and the sizes of the different members of the commonwealth, a universal pillage was to be promoted; and those who refused to plunder were to enjoy the satisfaction of being classed with the plundered. In this way, the whole of the evils pretended to be destroyed were anticipated. Europe was to be plunged in hostilities, that peace might, at some future period, be, contrary to the whole situation of human affairs, perpetual; those changes of dominion, for which war is chiefly dreaded, were to be the first step in the progress of the pacific system,—treachery and usurpation were to be enforced by immediate war, that war might not, at some future period, spring from treachery and usurpation, or be found necessary to prevent them.

What is the balance of power? What but a union to prevent all changes of dominion, a constant check upon the ambition of princes, a rallying point for principles of comprehensive and virtuous policy, and a defence for the weak against the strong? All this system is at an end, if the strong unite to arrange the dominion of the world, to parcel out states according to their fancy or interests, to spoil those who dare not resist, and to overwhelm, by an aggressive league, such as are powerful or brave enough to oppose. What matters it, that the longest tranquillity shall be the consequence of rooting out all the seeds of contradiction and revenge, that peace shall flourish when all are destroyed who had a right to defend or regain their rights by war? So much the worse. Injustice and wrong, in their worst forms, are then to enjoy a secure triumph, and the evil has only gained the quality of being irreparable. The '*solitudinem faciunt et appellant pacem*,' never ap-

plied with half so much force, either to the professed usurpations of ancient Rome and of modern France, as to the plan of universal equity and peace ascribed to Henry the Great.

But it may be said, that this only removes the difficulty one step; and that the evident absurdities and inconsistencies of the scheme are a sufficient ground of doubt respecting its existence, with those who admire the talents of the French monarch. We should, however, recollect, that the incongruity is only between the title and the substance of the measure, between the pretext and the reality; and that, if other advantages than the chimerical one of perpetual peace could be secured to France by the cooperation of certain foreign powers, France shewed no want of foresight, at least, by her attempts to seduce them with bribes, and to blind the mass of mankind with a council of Amphyctyons. There is, in fact, no great room to wonder at the folly of the plan by which France was to get rid, at once, of her great rival, to surround herself with petty states of her own creation, and to share the whole power of the continent with a few other nations, so impotent that they must be led by her, or so distant from the scene of action as to have no chance of ever taking part in any critical emergency. The indemnities all came from Austria or her allies, from the rival or the enemies of France. The favours were bestowed upon her friends, or upon such new states as the circumstances of the union must throw at her mercy. But why examine the ultimate effects of the scheme, when it is plain that its execution was never contemplated as either practicable or necessary? If the proposition could induce the chief powers of the continent to take part in the humiliation of Austria, the end of France was served; a few years of their cooperation were abundantly sufficient to reward her for the trouble of fancying a grand plan of a 'Christian Republic,' sufficient to make her mistress of all she had been fighting for, of all she has since gained by her arts and her arms.

Nor was there any thing so absurd in the outward appearance of Henry's plan, when skillfully dressed up and presented by his Jeannins and his Sullys. The ideas of men, even in the present day, are so very vague upon the subject of international policy, that we constantly find traces of errors, at least as gross as that which the King's project was intended to inculcate. The partition of Poland has been defended on the grounds of the equilibrium; and the ablest writer on these matters who has appeared for many years, has almost fallen into the same mistake. M. Gentz has argued, as if the chief object of international policy were to preserve certain great states, and consolidate smaller communities into large empires; forgetting that the '*balance of power*' has no meaning,

meaning, unless it be applied to the rights of all existing states, and that the universal monarchy of any one nation is only to be dreaded inasmuch as it supposes the general ruin of national independence. It is an error of the very same nature to which Henry's plan must have looked for a favourable reception with the bulk of mankind, and with those powers to whom it might be simply proposed, without the offer of new dominions, which generally accompanied the disclosure. To persuade a few neighbouring princes that their independence was the great end of all foreign policy; that, provided they flourished in freedom, it mattered not how little regard was paid to other potentates; that the cause of Europe meant their interests;—was a sort of doctrine which less skill and eloquence than the President's and the Duke's might easily have enforced. But other means, in fact, were used to secure the active cooperation for which those general topics served as the pretexts. And when we consider what those means were, and how the French monarch employed them, we shall both cease to wonder at his success in the negotiation, and to doubt what were its real objects.

The parties to whom he confided the scheme, were, the Pope, the Venetian and Swiss republics, the Duke of Savoy, the Electors of Mentz, Cologne, Bavaria, and the Elector Palatine; the Nobles of Hungary and Bohemia, certain free towns, and others. The Pope was to receive a whole kingdom (Naples) in real sovereignty, with the nominal supremacy of all Italy, and a place among the electors general; not to mention the inducements of persecuting the infidels, and stifling all sectarianism. It was very safe to entrust him with such secrets; and it was not being too sanguine to expect his concurrence. Venice was to receive the full possession of Sicily; certainly the richest acquisition with which the masters of the Adriatic could be bribed. It may be remarked, that no pains were taken to instruct the King of Sicily and Naples of these proceedings, which interested him as much as the Pope and Venice. He was to fall under the cognizance of the army of the Christian republic; the secret was to be communicated to him by heralds, and put home to him by bayonets. The Duke of Savoy, too, was initiated with perfect safety into a project which was to give him a rich crown, and exalt him from the lowest to the highest rank among the princes of Europe. It is not recorded that he made any objections to the proposal; no doubt he was persuaded of its excellent tendency to secure the peace of the world, and never hinted at the propriety of disclosing the scheme to the rightful owners of the realms which he was to receive. The Hungarian and Bohemian nobles naturally, that is, according to the nature of a feudal and factious aristocracy, preferred any change which destroyed the present hereditary dy-

nafty, and gave each of themselves a chance of the crown. In a word, all who were to be benefited by the projected wrongs and oppressions were made privy to the design, and zealously pledged their aid to the execution of it. Those who were to be ruined by the scheme, were spared the pain of knowing its existence; and those who were only remotely affected, had not time to give their full attention to the subject before its author was numbered with the victims of the scheme so happily consummated on St Bartholomew's day.

It may be asked, then, where lies all the improbability which has given occasion to the reasonings of M. Chambrier and others against the existence of the plan? That a prince of Henry's plain good sense and intimate acquaintance with affairs should have formed the design of giving perpetual peace to the world by means infinitely more chimerical than ever entered the head of a cloistered enthusiast, might indeed excite our wonder. But there is nothing very astonishing in the real state of the fact, that an ambitious and patriotic monarch, flushed with conquests, which, nevertheless, like all the victories of civil war, set bounds to the further progress of his arms against his foreign enemies, should have resolved to foment divisions among them, and raise such a party in his own favour as might spare the armies of France, while it raised her to the highest pitch of continental influence. Under pretence of giving peace to Europe—a pretence, addressed, not to his coadjutors whom he was bribing with spoil, but to the world in general, like all the appeals made in manifestoes and proclamations—he was only exciting a war of partition, and giving a new position to the balance which he saw that France could hold, as she placed it. He was not one of those statesmen who try to form coalitions by describing the real interests of their neighbours in diplomatic conferences, and expect to make foreign armies march into the field by argument and declamation on the propriety of hostilities. His reasoning was much more practical; it was levelled to the mean capacities of cabinets, as it was drawn from a thorough knowledge of their nature. To one he said, 'Attack the House of Austria, and you shall have Lombardy for your share of the spoil;' to another, 'Go to war, and here are fifty thousand men to assist you.' These were the sort of topics chiefly insisted upon by Henry; and he knew them to be wonderfully well suited to the comprehensions of the powers he had to deal with. That he ever looked beyond the first movements of his coalition, or expected any thing from the organization of the Italian commonwealth, it would be absurd to imagine. His end was gained if Austria was attacked on all sides. Having secured Germany, the Pope, the Duke of Savoy and Switzerland, by liberal offers of pillage; having

having made some progress in keeping the northern powers quiet by negotiation, and probably by secret offers also; and having succeeded in exciting the utmost discontent among the subjects of some of the Austrian provinces, no doubt can be entertained of his final, and even speedy success, to the whole extent of his wishes—the general dismemberment of his great rival's dominions, had he lived longer, or been followed by less peaceful successors.

We have seen that the reception of his plan, where he propounded it, presents nothing more wonderful than the structure of the scheme itself. No improbability then remains to excite our doubts, unless perhaps some admirer of Henry's character should imagine that the perfidy of the transaction suited ill with his general good faith, and other moral qualities. But to such a reasoner we shall only suggest this plain consideration, that the monarch who would carelessly plunge his country and his neighbours in all the horrors of war, to pursue the gratification of his passion for a silly woman, was either not very likely to feel squeamish upon the much more doubtful question of gaining a great and good end by improper means; or was a person upon whose steadiness of principle in public affairs no confidence could be placed. The character of this singular person is in truth vastly too mixed, to admit of any such positive inferences as those which are drawn against the likelihood of particular passages in a man's life, from their discrepancy with his general habits.

Although we are of opinion that the foregoing considerations render any discussion of the authenticity of the statements in Sully's memoirs a matter of subordinate importance, we shall nevertheless add a few words, for the purpose of noticing the evidence upon which those rest. It is to this view of the question that M. Chambrier directs his whole attention; and it may serve as a supplement to the remarks already offered upon the intrinsic merits of the subject.

Sully, says our author, is the only historian who mentions the particulars of Henry's plan, as we have above sketched it. Others talk of his *grand dessein*; but they mean by those terms a project for the general conquest of Austria, which is said to have been his real view, after he should have obtained the person of the Princess of Condé, by making war upon the Netherlands. From so hurtful a scheme, the Duke is reported to have turned him aside by his frugal system of government; and D'Etrées, in his *Memoires*, shews that, immediately after Henry's death, this prudent minister used his utmost influence with Louis XIII. and Mary the regent, in favour of pacific councils. M. Chambrier then argues, that the memoirs of Sully having been compiled
from

from his papers by his secretaries, we may be permitted to question the solidity of the grounds on which the whole statement depends. He quotes father Avrigny, who gives it scarcely any credit; and adds, that the secretaries themselves, admitting the fact of Sully never having conversed distinctly on the subject, state their authority for the insertion to have been 'different pieces of manuscript, unsigned, half torn, little connected, and thrown aside as useless.' But we should remember that their statement of the plan is precise, and that they aver the possibility of tracing it distinctly in those documents. They also mention having broached the subject to their master, who certainly would have given them immediate disproof of the suppositions which they had formed, had they been greatly deceived, although nothing could be more natural than his refusal to furnish secret details when he saw them on the right scent. Nay, the very circumstance of the statement being found only in Sully's papers, forms of itself a presumption against the mistake or falsity of the compilers. It was at once likely that traces of the design should be left there, though in no other quarter, and improbable that the secretaries should incorporate with their memoirs, not an augmentation or correction of stories then in circulation, but a vision entirely unknown to all the rest of the world.

M. Chambrier offers several remarks upon the discrepancy of Henry's conduct with various parts of the great design. By the treaty of Bruchsal in 1610, it is well known that Savoy was ceded to France as an indemnity for her aid to the Duke in conquering the Milanese. Other proofs are not wanting that the country of Nice was destined for France also. And the treaty of Halle stipulated the assistance of ten thousand men to the Princes of the league, in furtherance of their scheme for obtaining the succession of Cleves from the House of Austria, although, by the *grand design*, that succession was to have been incorporated with Holland in an independent republic. But it is unnecessary to dwell at greater length upon these discrepancies. They are all reconciled by the view of Henry's *grand design*, which we have ventured to suggest in the preceding pages; and the facts, on a comparison of which they proceed, only serve to place, in a still stronger light, the opinion we have there stated as to the real nature of that famous project.

ART. XIV. *Sopra il Carbone che si rinchiude nei Pianti.* Memoria di Giambattista da S. Martino. (from *Memorie di Matematica & Fisica della Societa Italiana.* Tom. VIII. Part II.

It is sufficiently singular that the sciences should suffer more than any other human concern, by the interruptions which arise

arise from local boundaries. We have seen, on many occasions, the difficulty with which works the most highly esteemed in one country become known, even to the most learned men of states situated in its immediate vicinity. Every one knows how long the immortal works of Bacon took to make their way across the Channel. The commentator on Kant's Philosophy, has informed us of the slowness with which a system that occupied every head on the right bank of the Rhine, crossed over to the left; and all Germany had been for twenty years busily occupied with romances and free-masonry, before it was suspected in England that such was the passion of the Germans. When we compare with this tardy and difficult communication of tastes and scientific lights, the rapid and hourly intercourse of ordinary commerce which unites the most remote quarters of the globe, we shall at least find reason to conclude that the interest excited by speculative pursuits, is of a kind very different in vivacity from the common desire of gain, and the gratification of our more sensual appetites. The bill of exchange which Mr Bruce drew in the depths of Abyssinia, where no European had ever before penetrated, was duly presented for payment in Lombard-street. The small gold coins of ancient Greece and Rome, have survived the lapse of ages, when objects of infinitely greater real value, and of far more easy preservation, have only left the renown of their names to the present generation; and we are now about to shew that the trifling boundary of the Alps, has locked up from the rest of Europe, the knowledge of many scientific works, which, on the northern side of those mountains, would have spread themselves with rapidity over all the studies of England and France. It is, however, worthy of notice, that the converse of the position does not hold. The Italian philosophers appear to be in full possession of all the improvements, even the most recent, which their brethren the 'Filosofi Oltramontani' have been adding to the stock of literature and science.

There are in the different States of Italy, a greater number of scientific institutions of importance for the ardour of their researches and the regularity and value of their publications, than in any equal portion of territory in the rest of Europe. Neither the multiplied divisions of political society which have place in Germany, nor the more compact monarchies of England, France and Spain, nor the crowded and busy population of Holland and the Netherlands, furnish any thing like the same number of distinguished academies. Leaving out of view a multitude of minor institutions, of societies devoted to the cultivation of the fine arts, and several physical academies, which have not as yet published memoirs (for example, those of Pisa and Pavia), we have, in the north of Italy alone,

alone, (a very narrow district, placed in circumstances not the most favourable to the calm pursuits of science), no fewer than five learned bodies, only one of which is ever mentioned in the north of Europe, and even that one very seldom referred to. The memoirs of the academies of Mantua, of Milan, of Padua, and of Turin, are all works of great merit. Of the latter, the only one ever quoted in England and France, probably because it alone publishes its transactions in the French language, we have begun to give our readers some specimens in the present Number. But more important than all these is the fund of original science contained in the transactions of the Italian Society of Verona. They are published in large volumes with great regularity, and contain a succession of the most interesting memoirs upon all the subjects of physical and mathematical science. We need only refer to the geometrical papers contained in the fourth volume of these transactions. We regret that this publication is of a date rather too far back to justify us in analyzing those tracts. They contain solutions of some problems, particularly of the famous problem, the simplest case of which is mentioned by Pappus Alexandrius, and of which the general case has been found to be of extreme difficulty by the methods of modern analysis, according to the first mathematicians. (*Berlin Memoirs for 1798, p. 95.*) Nothing can be conceived more perfectly rigorous, and at the same time more simple and elegant, than those geometrical investigations of the Italian mathematicians. Pappus mentions the problem in its easiest case, as having been solved by Apollonius, viz. to inscribe in a circle a triangle, whose sides pass through three given points in a given strait line. Cramé generalized this, so as to solve it wherever the points were placed. (*Berlin Memoirs, 1776.*) In the same volume is a solution by La Grange, also by the modern analysis. Euler, and his pupils Fufs and Lexel, solved this case geometrically in the Petersburg Memoirs for 1780. Castiglione gave another solution in the Berlin Memoirs for 1777. L'Huilier, in the same Memoirs for 1798, solves the general problem, 'to inscribe a polygon in a circle, so that all the sides may pass through given points.' This he does by the algebraical calculus suggested by La Grange. But the Italian mathematician does it by the purest rules of ancient geometry. He was a young man of fifteen when he discovered and made it known. His name is Annibale Giordano of Naples. Several most able tracts of his are contained in the Neapolitan Memoirs. The other mathematician who solved it at the same time, is Professor Malfatti of Ferrari.

The Societies of Bologna and Florence are famous, especially the latter, for their scientific researches; and, not to extend the catalogue

catalogue of this bright constellation of genius, the transactions of the Neapolitan Royal Academy (*Atti della Reale Accademia delle Scienze et Belle Lettere di Napoli*), contain some of the finest researches, particularly upon mathematical subjects, of which any modern institution can boast. We need only refer to Signor Ferrolana's two papers on local problems and porisms, (in which, by the way, he mistakes the nature of a porism most egregiously), and still more to the additional tracts of Signor Annibale Giordano on the same subjects, and to the paper of Saladino on Caustics.

The insulated labours of individuals have kept pace with the progress of public institutions. Of these, except a few anatomical tracts, and the late astronomical discoveries, none have as yet been made known in the northern parts of Europe. That they deserve very great attention, the specimens which we have given in the present Number will, we trust, sufficiently evince.

In all the scientific researches of the Italians, we discover proofs of the most happy capacities for the pursuits of true philosophy.

There is a distinctive character in their speculative inquiries, as well as in their schools of the fine arts. We meet with the same chasteness of style in the rigour of their induction, utterly void of that love of dazzling novelty, and that proneness to flimsy hypothesis, which distinguishes many masters of the French school; and equally remote from that dull and unprofitable fondness for mere facts, which characterizes the German daubers. We are not, it is true, so often astonished by grand discovery. We do not meet with the hand of a Black or a Lavoisier, any more than in their galleries we can expect to be arrested at every step by the vigour, the mighty force of a Reubens. But we find nothing to disgust by its tasteless flatness or its unchaste ornaments. We are constantly delighted with elegance, subtlety, ingenuity—with that which best deserves the name of fine genius: a proneness to reason and combine, but to reason by combining facts: a love of speculation, but joined to a nice capacity for observation: a decided partiality for the exercise of the rarer and more beautiful powers of the mind, without any unsuitness for the patient work of persevering and long sustained attention to details: a preference equally strong for efforts of original talent, and of that kind of talent which partakes of the fancy, and bears a relation to refined taste: a considerable degree of contempt for the mere exertion of memory and labour—the business of the linguist and the verbal critic—the work, the bodily toil performed hourly in all the book-maker shops of the three hundred states of Germany. In short, if nothing very sublime in the walks of scientific discovery has appeared among this fine and ill-appreciated people, they have given birth to numerous and varied works, of
great

great beauty and exquisite ingenuity. They can shew, even among the masters of their present school of philosophy, many Titians; and, as they once produced a Raphael to guide the pencil, we may expect to see them worship their own Newton, perhaps, before either France or England shall have given birth to a great master in the fine arts, and long before any one has arisen in Germany, capable of cutting the canvass, or mixing the colours.

We purpose, at present, to make our readers acquainted with some of the papers contained in the last publications of the *Società Italiana*, premising that they will find others of much more signal merit in the volumes themselves. Some of these we cannot attempt to analyze, without the assistance of figures; and others are of a nature too purely algebraical, to admit of any intelligible abstract. We especially allude to the two papers in vol. IX., upon the question, '*Whether the circle can be rectified and squared?*' and several other analytical dissertations, as the papers on equations, and on the law of continuity. All these we earnestly recommend to our scientific readers, as singularly beautiful and satisfactory pieces of mathematical research; and we willingly indulge a hope that this reference may have the effect of making those excellent productions known in this country. At present, we shall confine ourselves to less extensive objects, and shall begin with the chemical and physiological paper of Signor S. Martino now before us, as a tract of some interest, from the great importance of the subject, and of considerable merit, from the general accuracy of the methods pursued in the experimental investigation of it, though we shall have occasion to shew that it is remarkably deficient in the extent of its plan of inquiry.

After remarking that the discoveries of modern chemistry have reduced the simple elements of all vegetable substances to three bodies, carbon, oxygen, and hydrogen; that the origin of the earths, iron, and salts which enter into their composition, is easily traced when the origin of the other component parts has been ascertained; and that the source of oxygen and hydrogen is evidently the water in which all plants grow; our author proposes, as the only remaining problem, to ascertain the origin of the carbonaceous matter. He sets out with a remark of old date, that the health and strength of plants seem to be intimately connected with the fat or oleaginous, that is, the carbonaceous qualities of their food. As this position has never been directly proved, he begins by offering an experimental demonstration of it.

He first prepared a perfectly well mixed and homogenous soil, formed of earth and manure; and having sown in equal portions
of

of it, a lupin seed, and a grain of maize, he proceeded to make an accurate analysis of its component parts. In order to separate the vegetable mould salts, he used repeated agitation with distilled water, and found that no sensible quantity of salt was present, but that the soil contained above a third part of its weight of vegetable mould. The calcareous matter, or carbonate of lime, was then separated by means of acetous acid, and was found to compose about a tenth part of the mass. Sulphuric acid separated the argil, which amounted to somewhat more than the vegetable mould in weight; and the silicious matter being above one sixth, there were lost in the whole operation, not more than a two hundredth part.

The two vessels in which the plants were to grow, contained each twenty pounds of this soil, completely covered from the external air and moisture, except in a small hole for the stalk of the vegetable, and another for watering it. The water which exuded from this operation, was carefully collected. The vessels were scrupulously kept at a distance from all sources of carbonic acid, as fires, animals, fermentations, effervescences, &c.; were placed at a considerable height from the ground for the same reason; and were moistened only with water, which the test of *aqua calcis* proved to be quite free from any admixture of carbonic acid. The rain which fell during the four months that the experiment continued, was eight inches and four lines, but it was found to contain no carbonic acid: it seldom was allowed to touch the leaves, and never the soil. The water from time to time poured on the soil, was first carefully filtrated, and found to be of the exact weight of distilled water.

It only remained, when the plants had grown sufficiently large, to examine the changes produced, by the progress of their growth, upon the soil in the vessels. For this purpose, they were carefully drawn out, without taking away a particle of the mould, or leaving a single tendril of their roots in it. The mould of the lupin being weighed, was found to have lost 2910 grains in 116,400; that of the maize had lost 3395. The quality of this residuum was then examined, by a repetition of the analysis formerly described; and it was found, that the argillaceous and silicious parts had not been at all affected; that the vegetable mould was most diminished, having lost in the lupin pot 2546 grains, and in the maize pot 2971; while the calcareous earth had lost, in the former, 364, in the latter 424 grains. From this interesting result, our author concludes, that the carbonaceous matter alone furnishes the vegetable food, and that the mould and carbonate of lime are only useful as furnishing that carbon; a conclusion which we think by no means warranted by the preceding experiments.

Much

Much of the evidence on which it rests must no doubt depend on the subsequent portion of the inquiry, in which the constituent parts of the plants themselves are examined. But, in the present stage of the investigation, it is obvious to remark, that nothing can with confidence be laid down beyond this one position,—that vegetable mould and calcareous earth contribute to the nutriment of vegetables, and that argillaceous and silicious earths do not contribute thereto, at least by immediate absorption into the vegetable mass. It remains to prove, both the specific manner in which plants feed upon the two former bodies, and the negative position, that the two other substances are incapable of supplying indirectly some of the requisite aliment. The vegetable mould is not a simple carbon; the calcareous earth contains lime as well as carbonic acid. Therefore our author, by shewing that the plants diminish the quantity of mould and of calcareous earth, has not proved that the diminution falls upon carbon and carbonic acid alone. He ought obviously to have repeated his process upon soil impregnated with lime, and containing no carbonate, and to have examined what he vaguely calls vegetable mould, the oleaginous matter of which no doubt contains carbon, as well as the more stubborn parts, but carbon united with hydrogen and oxygen, and in every respect different from the simple element itself. It was evidently necessary to undertake this previous investigation, instead of being satisfied with reducing the soil to four elements, argil, silex, carbonate of lime, and vegetable mould; which last is not a simple substance. It was necessary to consider that a body is not composed of all the simple substances which it contains, in binary and ternary compounds; and that plants, like animals, may be nourished by those compounds, when they could, possibly, find no food in the simple elements. It was, therefore, incumbent on our author to vary his experiments in a second particular, and to feed his plants upon vegetable mould, whose component parts were determined; so that he might examine the change produced on it by the process of vegetation. Lastly, in order to shew the *inutility* of argil and silex to this process, it was necessary to vary the experiment still farther—to make the plants grow in a soil where no such bodies existed. He has only proved, that those substances are not actually absorbed by plants. They may, nevertheless, be as necessary to vegetation as the others. From all these plain considerations results a different, but compendious and accurate method of bringing the points at issue to a decision. Various processes of vegetation should at once have been begun, in the same circumstances, as to the nature of the seed, of the air, and of the water employed; but differing in the nature of the soil. One seed should have been sown in silex, and

and argil; another in vegetable mould; another in calcareous earth; another in mixtures of the two; another in various mixtures of those, with one or both of the former two substances. From the whole would have resulted, by examination of the soils after the different processes, a clear solution of the question.

We have only one other remark to offer upon this first branch of the inquiry. It appears to be a considerable oversight in the author, not to have reflected, that the loss of weight sustained by the soil might possibly be occasioned by the extrication of some of its volatile compounds, without any equal addition of weight to the plant. The soil was covered up, but a space was left for the plant to shoot forth its stem; and through this space, the gases, &c. may easily have made their escape. Nay, the respiration and transpiration of the leaves and buds of the vegetable itself, may have carried off part of the soil in a volatile form after secretion. The analogy of the animal economy would lead us to expect such an event; and there is little reason to suppose, that plants only respire and transpire the moisture which they imbibe, or its component parts. On the contrary, we know that they give out azotic gas in the night; and it remains to show, that this does not come from the soil as well as from the atmosphere. Indeed, it is not easy to conceive that it should come from the atmosphere alone; for, in the day, they give out oxygenous gas, evidently from the decomposition of something contained in them, effected by the sun's rays attracting the oxygen: And if the oxygen is thus separated from azote, supposing them to have absorbed atmospheric air, how should the darkness of the night assist the evolution of that azote? In other words, how should the light prevent the azote from flying off? The coincidence of the weight of the plant with the loss of the soil, admitting it to be much more complete than it is found to be, proves nothing in this question; for the plant has absorbed water and air.

Our author proceeds, in the second place, to lay down certain practical inferences, of much importance to agricultural science, but surely not distinguished by any great degree of originality;—that soil composed of sand and clay is unfit for vegetation; that such soil may be fertilized by manure, or by calcareous matter, or by mixture with other soils; that different plants require different degrees of fertility in the soil, in proportion as they consist of more or less carbon. Of these positions, however, our author's experiments may be admitted to furnish a theory or arrangement according to principle.

Our author next examined the constitution of the plants whose process of vegetation had been thus sedulously watched. The apparatus employed for this purpose was simple and well contrived:

it consisted of an air-tight furnace with a bellows; a separate place for the plant to burn upon, and a series of hydropneumatic vessels, the first filled with cold water, and destined to contain a phial through which the vapours of the burning plant should pass, in order that their aqueous parts might be collected; the rest containing pure solutions of caustic alkali, whose weight was previously ascertained, and destined to absorb the carbonic acid produced in the combustion. The process being now commenced, the combustion of the lupin furnished 8842 grains of carbonic acid; whence our author computes, that it contained 2475 grains of carbon; and he found the *caput mortuum* to consist of 168 grains. The maize furnished 10289 grains of carbonic acid, and consequently 2881 of carbon, and 200 of residuum. By an easy computation, but founded upon the supposition that the vegetable mould only furnishes carbon, and the calcareous matter only carbonic acid to the plant, our author reckons the total difference, on comparing the analysis of the plants with that of their soil, to be 5 grains in the case of the lupin, and 9 grains in the case of the maize.

From all these investigations, our author concludes, that the growth of plants, in so far as the essential element of carbon is concerned, depends entirely on the soil, that is, the vegetable mould and calcareous parts of the earth in which they grow: and that nothing can be less just than the hypothesis which ascribes to water the powers of nourishing vegetables: that the carbon which forms, according to his theory, the chief food of plants, is presented to them either uncombined, or in the form of acid, and that in both these forms the plants can receive it: that, unlike animals, they have no choice in their food, but must receive and secrete it as circumstances present it to them. He concludes his paper with a corollary, relating to the importance of analyzing different species of vegetables, by the apparatus and process above described. To ascertain their relative quantities of carbonaceous matter, is, according to him, the same thing with ascertaining their adaptation to various soils, and appreciating the changes which each soil must undergo, to render it a fit nursery of particular given vegetables. He gives an example in the analysis of a piece of wood 3000 grains in weight, which was found to contain 420 grains of hydrogen, 156 of oxygen, 2262 of carbon, and 162 of ashes. It is proper to remark, that none of these substances was obtained *per se*: the hydrogen was in the form of water; the carbon, in carbonic acid gas; and the oxygen in both the one and the other. So that its presence is only deduced, and its quantity estimated, from comparing the original weight of the wood with that of the

the products of combustion, calculating how much of these products (carbonic acid and water) consists of oxygen, deducting this as furnished by the atmosphere, and concluding that the difference between the remainder and the original 3000 grains, is oxygen contained in the plant. The paper closes with a tirade on the prospect which is opened, partly, if we well understand our author, by his researches, of studying nature in her most mysterious process, and a fervent prayer that the result may have 'un influenza diretta sull' scienze incremento delle scienze e sui vantaggi dell' uomo.' p. 20.

This paper, more especially the general inferences which it contains, will afford matter for some farther reflections, in addition to those formerly offered.

The apparatus employed by our author for ascertaining the constituent parts of the two plants, differs only in one respect from that used in the process known by the name of *the chemical analysis*. In that process, vegetables (or animal matter) are placed in a strong earthen retort, and the heat of a sand-bath is applied gradually, and at last pushed to a great degree of intensity. The condensable vapours which fly off are received in refrigerating recipients; the uncondensable vapours, or permanently elastic fluids, are received in a pneumatic apparatus; and the body, submitted to this rude species of trial, is vaguely and falsely said to be composed of the different products thus obtained, together with the *caput mortuum* or fixed residuum which remains in the retort. The extreme incorrectness of this inference is obvious; for the process, instead of simply separating the elements of the body, mixes them in new proportions and combinations; so as to form a variety of compounds, not before existing in the substance submitted to examination. The process of Signor S. Martino differs from this only in substituting combustion for distillation; and the difference is only an augmentation of inaccuracy and error. Had he analyzed the vegetables in the old way, by distillation, he would have driven off all their volatile parts, and obtained a residuum which must have included the carbonaceous matter required. This matter could never have been united with the oxygen of the plant during a slow distillation, or with the oxygen contained in the water of the plant; for both the oxygen and the water would have been driven off before any heat had been applied sufficient to oxygenate the carbon; the oil would have been driven off, in like manner, without decomposition: whereas, our author's process loses sight of this component part altogether, by decomposing it; and the quantity of carbon existing *as such* in the plant would immediately have been obtained, by an easy process, for analyzing the fixed residuum. Instead

of this; (which, nevertheless, we do not propose as a good method of analysis, but only as one infinitely better than our author's), he decomposes all the binary or ternary compounds of which the plant may have consisted; and thus gives a most indeterminate and fallacious solution of the problem. He finds carbonic acid formed, and deduces from thence the quantity of carbon contained in the plant: he finds water formed, and thence deduces the quantity of hydrogen contained in the plant. But does it follow that those elements, carbon and hydrogen, may not have existed in a state of union in the plant? Would not the same results have followed, had the plant contained oil, without one particle of either loose carbon or loose hydrogen? Would not the combustion of this oil have presented water and carbonic acid exactly in the same manner? Would not water and carbonic acid have been formed by burning the plant, if it had been composed of oil and carbon—or oil and hydrogen—or oil, carbon, and hydrogen—or carbon and hydrogen—or carbon, oxygen, and hydrogen, in any imaginable proportions? It is obvious, then, that the analysis is the most fallacious that can be conceived in this point of view. But, in another respect, it is at least equally so. Our author obtains water from the process of combustion; and concludes from thence, that this water owes its oxygen entirely to the atmospherical air, the plant having only, according to him, furnished the hydrogen. But if the plant had contained oxygen as well as hydrogen separately, might not water have been formed without a particle of atmospherical air? And if water had existed already formed in the plant, would not the very same result have been obtained? Thirdly, he concludes, from finding carbonic acid gas, that carbon existed in the plant, and that it was oxygenated by the atmospherical air. But, suppose carbonic acid had existed in the plant already formed, would not the heat have drawn it off, and presented the very result from whence our author draws an inference, that carbon unoxxygenated existed in the plant? Or, if carbon and carbonic acid had both been present in any imaginable proportion, would not carbonic acid have been obtained in the receiver of caustic alkali? Therefore, in three material respects, our author's inference is absolutely fallacious: it makes no allowance for the possible existence of water, carbonic acid, and oil in the plants; and lays it down as certain, that certain substances, hydrogen, carbon, and oxygen, formed the sole constituent parts of the vegetable, when it is very possible that not a particle of either, *per se*, may have existed in it. Nor should we forget, that the nature of the soil, in which the plants are proved by our author's own experiments to have grown, renders it extremely probable that our supposition may

may be the right one. The soil which, according to him, alone gave them nourishment by absorption, was an unctuous vegetable mould, formed by animal ordure, and a carbonate of lime. Water was the only other substance engaged in the process. Here, then, we have oil, carbonic acid and water, directly exhibited and proved, by our author himself, to have been copiously absorbed by the plants during their growth. Is it not reasonable to conclude, that the plants may have been composed of them? Nay, do not all former experiments on the physiology of vegetables teach us, that they contain oil? And does not the daily evidence of our senses shew us that they contain water? Yet for all this no allowance is made by Signor da S. Martino.

There is one other particular in which we are forced to disagree with him. In his analysis of the bit of wood, he infers that oxygen was contained in it, not because he detected that substance, but merely because something was necessary to make his numbers balance, and because he could think of nothing else but oxygen for the purpose. For he expressly tells us, that the amount of the water, carbonic acid and fixed residue, was so much, that therefore he concluded the difference between this quantity and 3000 (the original weight of the wood) was all received from the atmosphere; and that he also inferred, that the carbon of the acid, and the hydrogen of the water, alone came from the wood, which left a deficit of 156 grains wanting to complete the 3000. Consequently, because the sort of wood employed contains no azote, this 156 grains must have been oxygen. It is singular that he never mentions what kind of wood he used. But, at any rate, the above deduction obviously possesses all the qualities of reasoning in a circle. No proof whatever is offered to shew that the oxygen came from the atmosphere; no evidence is given of the escape of a portion of gas: and, admitting that such a portion had been proved to have escaped, we are left to conjecture that it was oxygen, merely because the author does not know that azote is contained in the wood: And, after all, it remains to be shewn that the various changes which the constituent parts of the vegetable substance undergo in the experiment, produce no difference upon their specific gravities; for our author's calculation proceeds upon the constant assumption that no such alteration is occasioned.

Upon the whole, though we acknowledge the ingenuity of this paper, and especially admire the elegance of the method taken to analyze the soil; and though we admit the accuracy of the means used to effect the determinate growth of the plants in known substances, we must be excused for altogether denying the

the legitimacy of the author's general conclusions, on account of the defects attending the latter part of his process.

ART. XV. *Fleetwood: or the New Man of Feeling*. By William Godwin. In three volumes, 12mo. Richard Phillips, London. 1805.

WHETHER has read Caleb Williams, and there are probably few, even amongst those addicted to graver studies, who have not perused that celebrated work, must necessarily be eager to see another romance from the hand of the same author. Of this anxiety we acknowledge we partook to a considerable degree; not, indeed, that we had any great pleasure in recollecting the conduct and nature of the story; for murders, and chains, and dungeons, and indictments, trial and execution, have no particular charms for us, either in fiction or in reality. Neither is it on account of the moral proposed by the author, which, in direct opposition to that of the worthy chaplain of Newgate, seems to be, not that a man guilty of theft or murder is in some danger of being hanged; but that, by a strange concurrence of circumstances, he may be regularly conducted to the gallows for theft or murder which he has never committed. There is nothing instructive or consolatory in this proposition, when taken by itself; and if intended as a reproach upon the laws of this country, it is equally applicable to all human judicatures, whose judges can only decide according to evidence, since the Supreme Being has reserved to himself the prerogative of searching the heart and of trying the reins. But, although the story of Caleb Williams be unpleasing, and the moral sufficiently mischievous, we acknowledge we have met with few novels which excited a more powerful interest. Several scenes are painted with the savage force of *Salvator Rosa*; and, while the author pauses to reason upon the feelings and motives of the actors, our sense of the fallacy of his arguments, of the improbability of his facts, and of the frequent inconsistency of his characters, is lost in the solemnity and suspense with which we expect the evolution of the tale of mystery. After Caleb Williams, it would be injustice to Mr Godwin to mention *St Leon*, where the marvellous is employed too frequently to excite wonder, and the terrible is introduced till we have become familiar with terror. The description of *Bethlem Gabor*, however, recalled to our mind the author of Caleb Williams; nor, upon the whole, was the romance such as could have been written by quite an ordinary pen. These preliminary remarks are not entirely misplaced, as will appear from the following quotation from the preface to *Fleetwood*,

“ One caution I have particularly sought to exercise—“ not to repeat myself.” Caleb Williams was a story of very surprising and uncommon events, but which were supposed to be entirely within the laws and established course of nature, as she operates in the planet we inhabit. The story of *St Leon* is of the miraculous class; and its design, to “ mix human feelings and passions with incredible situations, and thus render them impressive and interesting.”

“ Some of those fastidious readers—they may be classed among the best friends an author has, if their admonitions are judiciously considered—who are willing to discover those faults which do not offer themselves to every eye, have remarked, that both these tales are in a vicious style of writing; that Horace has long ago decided, that the story we cannot believe, we are, by all the laws of criticism, called upon to hate; and that even the adventures of the honest secretary, who was first heard of ten years ago, are so much out of the usual road, that not one reader in a million can ever fear they will happen to himself.” Vol. I. Pref.

Moved by these considerations, Mr Godwin has chosen a tale of domestic life, consisting of such incidents as usually occur in the present state of society, diversified only by ingenuity of selection, and novelty of detail. How far he has been successful, will best appear from a sketch of the story.

Fleetwood, the only son of a gentleman who has retired from mercantile concerns to the enjoyment of a liberal fortune, is born and educated among the mountains of Wales. He has no companions saving his father, an infirm though very respectable old gentleman, and his tutor, who was *not* a clergyman; notwithstanding which, he studied Plato without understanding him, and indemnified himself by writing sonnets which could be understood by nobody. Fleetwood being of course a passionate admirer of the beauties of nature, preferred scrambling over the heights of Cader Idris, adoring the rising, and admiring the setting sun, to perusing the pages of Plato, and the poetry of his tutor. In one of these rambles, somewhat to the reader's relief, whose patience is rather tired by an unfruitful description of precipices, cascades, and the immeasurable ocean in the back ground, he at length meets with an adventure. A lamb, a favourite lamb, falls into a lake: the shepherd plunges in after the lamb: an aged peasant, his father, is about to plunge in after the shepherd, when Fleetwood, as might have been expected, anticipates his affectionate intentions. After remaining a reasonable time in the water, the shepherd holding the lamb, and Fleetwood supporting the shepherd, they are all three fished up by an interesting young damsel who approaches in a boat, and proves to be (according to good old usage) the mistress of William the shepherd, and the proprietor of the half-drowned favourite. This adventure leads to nothing,

except that, in the conclusion of the work, the interesting young woman unexpectedly pops back upon us in the very useful, though not very romantic character of an old sick-nurse; deserving, no less, in her advanced age, the praises of the Institution for Relief of the Destitute Sick, than in her youth she had merited a premium from the Humane Society. The worthy tutor, in like manner, vanishes entirely from our view, retiring to an obscure lodging in a narrow street, to finish his book of sonnets, and his commentary on Plato. His pupil is now introduced to the knowledge of mankind at the University. Here he discovers no aversion to distinguish himself among the dissipated sons of fortune, and soon becomes something very different from the climber of mountains and diver into lakes. But he acquits himself of all share in a *quizzing* scene, played off upon a *fresh-man* called Withers, who had written a tragedy on a very interesting subject—the cleansing of the Augean stable. This piece he is prevailed upon to recite to certain arch wags, who receive it with rapture, fill the author drunk, and bear him home, crowned with parsley, and dropping with wine, in classical triumph. They have afterwards the address to pass a wooden figure upon him for the master of his college, who, after a rebuke pronounced in character by one of the quizzers, who chanced to be a ventriloquist, proceeds, by some unknown mechanism, to inflict upon Withers the academical discipline under which Milton is said to have smarted of yore; but, far from imitating the submission of his sublime prototype, the modern bard kicked and cuffed in stout opposition, till he discovered the impassible character of his antagonist. The joke ends by Withers going mad, and the ingenious authors of his distress being rusticated. We presume the ventriloquist found a refuge with Fitz-James, and the mechanist with Merlin or Maillardet. What connexion this facetious tale has with Fleetwood, or his history, does not appear; but we reverence the established privilege of an Oxonian to prose about all that happened when he was at Christ-Church.

We now accompany Fleetwood on his travels. Paris was his first stage, where he had the strange and uncommon misfortune to be jilted by two mistresses. The first was a certain Marchioness, whose mind ‘resembled an eel,’ and who delighted in the bold, the intrepid, and the masculine. Her lover was greeted with an impudent amazonian stare, a smack of the whip, a slap on the back, and a loud and unexpected accent that made the hearer start again. Upon discovering the infidelity of this gentle lady, Fleetwood, being in Paris, followed the example of the Parisians, but not without experiencing certain twinges of pain, and revolutions of astonishment, to which we believe these good people,

people, on such occasions, are usually strangers. In a word, he took another mistress. The Countess de B. had every gentle amiability under heaven, and only one fault, which might be expressed in one word if we chose it, but we prefer the more prolix explanation of the author.

‘ Yet the passion of the Countess was rather an abstract propensity, than the preference of an individual. A given quantity of personal merit and accomplished manners was sure to charm her. A fresh and agreeable complexion, a sparkling eye, a well-turned leg, a grace in dancing or in performing the manœuvres of gallantry, were claims that the countess de B. was never known to resist.’ Vol. I. p. 152.

Upon discovery of this frailty, our hero's patience forsook him; and he raved, fumed, and agonized, till ours likewise was on the verge of departure. In this paroxysm, his taste for the mountain and the desert returned upon him like a frenzy; and as there were none nearer than the Alps, to the Alps he flew, incontinently on the wings of despair. He repairs to the mansion of a venerable old Swiss gentleman, a friend of his father, delightfully situated in the valley of Urseren, in a wood of tall and venerable trees; a very extraordinary and fortunate circumstance for the possessor, as we will venture to say that it is the only wood that ever grew in that celebrated valley, which is the highest inhabited ground in the Alps. The host of Fleetwood carries him to a pleasure party on the lake of Uri, and chuses that time and place to acquaint him, that while he was living jollily at Paris, his father had taken the opportunity of dying quietly in Merionethshire.* The effect of this intelligence upon Fleetwood is inexpressibly striking. He ate no breakfast the next morning; and it was not till the arrival of dinner, that ‘ hunger at length subdued the obstinacy of his grief.’ Ruffigny, his host, now joins him; and after a reasonable allowance of sympathy and consolation, entertains him with the history of his connexion with his father.

Ruffigny, left in infancy to the guardianship of a wicked uncle, who thirsted after his inheritance, had been trepanned to Lyons, and bound apprentice to a silk-weaver, or rather employed in the more laborious part of his drudgery. His feelings on being gradually subjected to this monotonous and degrading labour, are very well described, as also the enthusiastic resolution which he forms, of throwing himself at the feet of the King

* By the way, we greatly question the locality here pitched on. We know of no such lake as the lake of Uri; but we suppose the lake of Lucerne, a lake of the four cantons, was the scene of this affecting discovery. But Mr Godwin is not much at home in Switzerland.

King of France, whom the boy had pictured to himself like the Henry and the Francis, the heroes of the legendary tales of his country. His escape, his journey, his disappointment, have all the same style of merit; and it is in such painting, where the subject is actuated by some wild, uncommon or unnatural strain of passion and feeling, that we conceive Mr Godwin's peculiar talent to lie. At Paris, the deserted Ruffigny is patronized by Fleetwood, the grandfather of our hero; and his future connexion with that family is marked with reciprocal acts of that romantic generosity, which is so common in novels, and so very rare in real life.

The main narrative is now resumed. Ruffigny accompanies Fleetwood on his return to England, where he finds in his paternal dwelling 'an empty mansion and a tenanted grave.' Notwithstanding his grief for his father's death, he is on the point of forming a connexion with a bewitching Mrs Comorin, (*quere* Cormorant?) who had lately cohabited with Lord Mandeville, but, having quarrelled with her admirer, had a heart and person vacant for the first suitable offer. This naughty affair is interrupted by the precipitate retreat of Ruffigny, who, not chusing to be present where such matters were going forward, was in full march towards Switzerland, when he is recalled, by Fleetwood's consent, to sacrifice his young mistress to his old friend. After this period, the story flags insufferably. Fleetwood, like king Solomon of yore, tries the various resources of travelling, society, literature, politics and farming, and, with him, pronounces them all vanity and vexation of spirit. In this vain pursuit, he becomes a confirmed old bachelor; and the interest of the story, contrary to that of every other novel, commences when he exchanges this unprofitable state for that of matrimony.

This grand step he is induced to take by the disinterested arguments of Mr Macneil, a shrewd Scotchman, whom he meets on the lakes of Cumberland, and who at that very moment had four unmarried daughters upon his hands. The accomplishments of these damsels were rather overshadowed by some peculiarities in the history of their mother. This lady, when very young, had, while in Italy, married her music-master, who gave her no small reason to repent her choice. Macneil delivered her from the tyranny of this ungrateful musician, who had immured her in a ruinous castle, his hereditary mansion! That she gave her deliverer her heart was natural enough, but she also bestowed upon him her hand, to which the deserted minstrel had an unalienable claim. The ladies on the lakes of Cumberland judging that two husbands was an unreasonable allowance, declined intercourse with the fair monopolist. Macneil was therefore about

to return to Italy, where he had vested his whole fortune in the hands of a banker of Genoa ; but, upon the fervent suit of Fleetwood, he agreed that his youngest daughter Mary should remain in England. He himself, with his wife and three eldest daughters, proceed on their voyage, leaving Mary a visitor in a family at London. The vessel in which the Macneils had embarked is wrecked in the Bay of Biscay, and all that unfortunate family perish in the waves. This disastrous intelligence is nearly a death-blow to poor Mary, the sole survivor, and to whom her mother and sisters had hitherto been all in all. The Genoese banker finding that no vouchers of his being the depository of Macneil's fortune had escaped from the wreck, refuses to give any account of it ; and our interest in Mary's distress and desolation is unnecessarily interrupted by a minute detail of the steps by which Fleetwood in vain attempted to bring a banker to confess the receipt of a sum which could not otherwise be proved against him. It is even hinted, as a reason for which he pressed his marriage with the deserted orphan, that he at length became afraid that, since the question rested on a trial of character betwixt him and the Genoese, he might himself be suspected of having embezzled her fortune. This is one of the instances of coarseness and bad taste with which Mr Godwin sometimes degrades his characters. In Caleb Williams, a gentleman passionately addicted to the manners of ancient chivalry, becomes a midnight assassin, when an honourable revenge was in his power ; and in Fleetwood, a man of feeling, in soliciting an union pressed upon him by love, by honour, and by every feeling of humanity, is influenced by a motive of remote and despicable calculation, which we will venture to say never entered the head of an honest man in similar circumstances.

Fleetwood and Mary are at length married ; and from this marriage, as we have already noticed, commences any interest which we take in the history of the former. Indeed it can hardly be called a history, which has neither incident nor novelty of remark to recommend it, consisting entirely of idle and inflated declamations upon the most common occurrences of human life. The union of Mary and Fleetwood, considering the youth and variable spirits of the former, and the age and confirmed prejudices of the latter, promises a more interesting subject of speculation. Upon their arrival in Wales, the reader is soon made sensible that a man of feeling, upon Mr Godwin's system, is the most selfish animal in the universe. We appeal to our fair readers if this is not a just conclusion, from the following account of the matrimonial disputes of this ill-matched pair. Upon visiting the family mansion in Merionethshire, the lady gives the first cause of disgust,

disgust, by rather hastily appropriating to her own purposes a closet which had been the favourite retirement of her husband. Without having the force of mind to tell Mary that this unlucky *boudoir* was consecrated to his own studies, Fleetwood nourishes a kind of secret malice against his wife for her unlucky selection of this retreat, hallowed as it had been to his own exclusive use. This is hardly over, when a new offence is given. While our hero is reading to his young bride his favourite play, 'A Wife for a Month,' (in fact he did not retain his own for many more), Mary, either from natural levity, or because the ardent declamations of the amorous Valerio excited comparisons unfavourable to Fleetwood, chooses to desert the rehearsal in order to botanize with a young peasant on the cliffs of Cader Idris. Now there is nothing unnatural in this incident; and we believe domestic felicity is frequently interrupted by such differences of taste and neglect of the feelings of each other. But we doubt whether our readers will not think the tragic declamations of Fleetwood infinitely too high-toned for the nature of his misfortunes. It is not very pleasant to lose possession of a favourite closet, and it is teasing enough to be deserted while reciting a favourite author; but surely the *sesquipedalia verba* of Fleetwood attach to these grievances a degree of consequence in which none can sympathize, and which to most will be the subject of ridicule. Another cause of dispute, of a still more important, as well as of a more common kind, arises betwixt Fleetwood and Mary. This concerns the share to be taken in the visits and public society of the country in which they lived. Mary's fondness for these amusements excites the displeasure, and at length the jealousy of her husband; and he expresses both, with very great indulgence to his own feelings, and very little to those of his lady. In these circumstances her health began to give way, under the perpetual irritation occasioned by the deportment of her moody partner; and her mind settled in mournful recollection upon the contemplation of the loss she had sustained by the shipwreck of her sisters and parents. We transcribe the following account of the progress of her malady as one of the few interesting passages in the book.

'One further circumstance occurred in the progress of Mary's distemper. She would steal from her bed in the middle of the night, when no one perceived it, and make her escape out of the house. The first time this accident occurred, I was exceedingly alarmed. I awoke, and found that the beloved of my soul was gone. I sought her in her closet, in the parlour, and in the library. I then called up the servants. The night was dark and tempestuous; the wind blew a hollow blast; and the surges roared and stormed as they buffeted against the hurricane. A sort of sleet blew sharp in our faces when we opened the door

of

of the house. I went myself in one direction, and despatched the servants in others, to call and search for their mistress. After two hours she was brought back by one of my people, who, having sought in vain at a distance, had discovered her, on his return, not far from the house. Her hair was dishevelled; her countenance as white as death; her limbs cold; she was languid and speechless. We got her, as quickly as we could, to bed.

'This happened a second time. At length I extorted her secret from her. She had been to the beach of the sea to seek the bodies of her parents. On the sea-shore she seemed to converse with their spirits. She owned she had been tempted to plunge herself into the waves to meet them. She heard their voices speaking to her in the hollow wind, and saw their faces riding on the top of the waves, by the light of the moon, as it peeped precariously through the storm. They called to her, and bid her come along, and chid her for her delay. The words at first sounded softly, so that it seemed difficult to hear them, but afterward changed to the most dolorous and piercing shrieks. In the last instance, a figure had approached her, and, seizing her garment, detained her, just as she was going to launch herself into the element. The servants talked something of a gentleman, who had quitted Mary precisely as they came up to conduct her home.

'She confessed that, whenever the equinoctial wind sounded in her ears, it gave a sudden turn to her blood and spirits. As she listened alone to the roaring of the ocean, her parents and her sisters immediately stood before her. More than once she had been awaked at midnight by the well known sound; and looking out of bed, she saw their bodies strewed on the floor, distended with the element that filled them, and their features distorted with death. This spectacle she could not endure; she had crept silently out of bed, and, drawing a few clothes about her, had found her way into the air. She felt nothing of the storm; and, led on by an impulse she could not resist, had turned her steps towards the sea.' Vol. III. p. 79.-82.

This kind of partial derangement of the intellect is very strikingly described. It has not, however, the merit of novelty, as the same idea occurs in the licentious novel of *Faublas*, written by the famous *Louvet*. At the conclusion of that work the hero tells us, that still when the south wind whistled, or the thunder rolled, his disordered imagination presented to him the scene which had passed at the death of his mistress; he again heard the sound of the midnight bell, and the voice of the centinel who pointed to the river, and coldly said, 'She is there.' We quote, from memory, a work which, for many reasons, we would not choose to read again; but we think that this is the import of the passage, and it considerably resembles that in *Fleetwood*, though the idea in the latter is more prolonged and brought out.

Mary is removed to Bath, where she recovers from her depression

sion of spirits, to fall into the opposite extreme of giddy and unceasing hilarity. At this time, Fleetwood is joined by two cousins, both under his patronage, and who come to reside in his family. They are half brothers. Kenrick is an open, candid, thoughtless young soldier; Gifford a deep hypocritical villain. These two brothers, like the black and white genius in Voltaire's tale, attend Fleetwood through the rest of the book, and are the causes of the good and bad fortune which befall him. Gifford contrives to insinuate into the mind of his patron a suspicion of the virtue of Mary, which is strengthened by her being in reality the confidante of Kenrick, to whom he artfully represents her as unlawfully attached. This plot, in itself rather threadbare, is not, in the present instance, managed with uncommon felicity. The circumstances which excite the suspicions, and finally the furious rage of Fleetwood, are such as usually occur in such cases; but when he drives his pregnant spouse out of his house, he carries his jealous resentment to a most disgusting excess. We can pardon the vehemence of Othello, who kills his wife outright; but, in exposing a destitute orphan to all the miseries of poverty and beggary, we humbly think Fleetwood merits any title better than that of a man of feeling. At the same time that he has been guilty of this outrage, he continues distractedly fond of his wife, as will plainly appear from the following scene enacted upon the Continent, whither he had retired from the scene of his supposed disgrace and actual misery. He ordered wax models to be made, so as to represent his wife and her supposed seducer, with a barrel-organ modulated to the tunes which they used to play and sing together. These were to be produced on the anniversary of his wedding-night.

‘When at length the fifteenth of July came, I caused a supper of cold meats to be prepared, and spread in an apartment of my hotel. All the materials which I had procured with so much care and expence, were shut up in the closets of this apartment. I locked myself in, and drew them forth one after another. At each interval of the ceremony, I seated myself in a chair, my arms folded, my eyes fixed, and gazed on the object before me in all the luxury of despair. When the whole was arranged, I returned to my seat, and continued there a long time. I then had recourse to my organ, and played the different tunes it was formed to repeat. Never had madness in any age or country so voluptuous a banquet.

‘I have a very imperfect recollection of the conclusion of this scene. For a long time I was slow and deliberate in my operations. Suddenly my temper changed. While I was playing on my organ one of the tunes of Kenrick and Mary—it was a duet of love; the mistress, in a languishing and tender style, charged her lover with indifference; the lover threw himself at her feet, and poured out his soul in terms of adoration.

ration. My mind underwent a strange revolution. I no longer distinctly knew where I was, or could distinguish fiction from reality. I looked wildly and with glassy eyes all round the room ; I gazed at the figure of Mary ; I thought it was, and it was not, Mary. With mad and idle action I put some provisions on her plate ; I bowed to her in mockery, and invited her to eat. Then again I grew serious and vehement ; I addressed her with inward and convulsive accents in the language of reproach ; I declaimed with uncommon flow of words upon her abandoned and infernal deceit ; all the tropes that imagination ever supplied to the tongue of man seemed to be at my command. I know not whether this speech was to be considered as earnest, or as the sardonic and bitter jest of a maniac. But, while I was still speaking, I saw her move—if I live, I saw it. She turned her eyes this way and that ; she grinned and chattered at me. I looked from her to the other figure ; that grinned and chattered too. Instantly a full and proper madness seized me ; I grinned and chattered in turn to the figures before me. It was not words that I heard or uttered ; it was murmurs and hissings, and lowings and howls. I became furious. I dashed the organ into a thousand fragments. I rent the child-bed linen, and tore it with my teeth. I dragged the clothes which Mary had worn, from off the figure that represented her, and rent them into long strips and shreds. I struck the figures vehemently with the chairs and other furniture of the room, till they were broken to pieces. I threw at them, in despite, the plates and other brittle implements of the supper-table. I raved and roared with all the power of my voice. I must have made a noise like hell broke loose ; but I had given my valet a charge that I should not be intruded upon ; and he, who was one of the tallest and strongest of men, and who ever executed his orders literally, obstinately defended the door of my chamber against all inquisitiveness. At the time, this behaviour of his I regarded as fidelity ; it will be accounted for hereafter. He was the tool of Gifford ; he had orders that I should not be disturbed ; it was hoped that this scene would be the conclusion of my existence. I am firmly persuaded that, in the last hour or two, I suffered tortures not inferior to those which the North American savages inflict on their victims ; and, like those victims, when the apparatus of torture was suspended, I sunk into immediate insensibility. In this state I was found, with all the lights of the apartment extinguished, when, at last, the seemingly stupid exactness of my valet gave way to the impatience of others, and they broke open the door. * Vol. III. p. 248—253.

The rest of the story may be comprised in a few words. Gifford, whom Fleetwood had constituted his heir, becomes impatient to enter upon possession ; and, finding his patron's constitution proof against mental distress, he attempts, with the assistance of two ruffians, to murder him in the forest of Fontainebleau. As all Fleetwood's servants were in Gifford's pay, they saw this transaction take place without interference—a circumstance which struck

struck their master so forcibly, that, while the ruffians were dragging him into the wood, he was considering whether it be one of the effects of wealth, that with it we engage persons in our service to murder us. The solution of this problem, as well as the consummation of Gifford's crime, is interrupted by the arrival of some horsemen, who rescue Fleetwood, and make the assailants prisoners. That Kenrick was his preserver will be readily anticipated by all who are acquainted with the good old beaten track of novels on these occasions; and to do Mr Godwin justice, he has seldom taken a by-path from one end of this performance to the other. Gifford is consigned to the gallows, which he had merited; the clouds of jealousy, which had obscured the mind of Fleetwood, are gradually dispelled; every suspicious circumstance is accounted for; and after some hesitation (very natural, we think) on the part of Mary, she is again united to the Man of Feeling.

Having occupied so much room in detailing the story, we have but little left for animadversion. The incidents during the two first volumes, are chiefly those of the common life of a man of fashion; and all that is remarkable in the tale is the laboured extravagance of sentiment which is attached to these ordinary occurrences. There is no attempt to describe the minuter and finer shades of feeling; none of that high finishing of description, by which the most ordinary incidents are rendered interesting: on the contrary, the effect is always sought to be brought out by the application of the inflated language of high passion. It is no doubt true, that a man of sensibility will be deeply affected by what appears trifling to the rest of mankind; a scene of distress or of pleasure will make a deeper impression upon him than upon another; and it is precisely in this respect that he differs from the rest of mankind. But a man who is transported with rage, with despair, with anger, and all the furious impulses of passion, upon the most common occurrences of life, is not a man of sentiment, but a madman; and, far from sympathizing with his feelings, we are only surprised at his having the liberty of indulging them beyond the precincts of Bedlam.

In the third volume, something of a regular story commences, and the attention of the reader becomes fixed by the narrative. But the unnatural atrocity of Gifford, and the inadequate means by which he is so nearly successful, render this part of the tale rather improbable. The credulity of Fleetwood is unnecessarily excessive, and might have been avoided by a more artful management of incident.

But we have another and a more heavy objection to him, considered as a man of feeling. We have been accustomed to associate with our ideas of this character the amiable virtues of a Harley, feeling

feeling deeply the distresses of others, and patient, though not insensible, of his own. But *Fleetwood*, through the whole three volumes which bear his name, feels absolutely and exclusively for one individual, and that individual is *Fleetwood* himself. Indeed he is at great pains, in various places, to tell us that he had been uncontrouled in his youth, was little accustomed to contradiction, and could not brook any thing which interfered either with his established habits, or the dispositions of the moment. Accordingly, his despair for the loss of his two French mistresses, is the despair of a man who loses something which he thinks necessary to his happiness, and in a way not very soothing to his feelings: But as we understand him, he can no more be properly said to be in love with either of these fair ladies, than a hungry man, according to Fielding's comparison, can be said to be in love with a shoulder of Welsh mutton. In like manner, his pursuit after happiness, through various scenes, is uniformly directed by the narrow principle of self-gratification; there is no aspiration towards promoting the public advantage, or the happiness of individuals; Mr *Fleetwood* moves calmly forward in quest of what may make Mr *Fleetwood* happy; and, like all other egotists of this class, he providentially misses his aim. But it is chiefly in the wedded state that his irritable and selfish habits are most completely depicted. With every tie, moral and divine, which can bind a man to the object of his choice, or which could withhold him from acts of unkindness or cruelty, he commences and carries on a regular system for subjecting all her pleasures to the controul of his own; and every attempt on her part to free herself from this constraint, produces such scenes of furious tyranny, as at the beginning nearly urge her to distraction, and finally drive her an outcast from society. In short, the new Man of Feeling, in his calm moments a determined egotist, is, in his state of irritation, a frantic madman, who plays on a barrel-organ at a puppet-show till he and the wooden dramatic personæ are all possessed by the foul fiend *Hibbertigibbet*, who presides over *mopping* and *mooring*. We close the book with the painful reflection, that Mary is once more subjected to his tyranny; and our only hope is, that a certain Mr *Scarborough*, a very peremptory and overbearing person, who assists at the denouement, may, in case of need, be a good hand at putting on a strict waistcoat.

ART. XVI. *Ancient and Modern Malta: containing a Description of the Ports and Cities of the Islands of Malta and Goza; the History of the Knights of St John of Jerusalem; and a particular Account of the Events which preceded and attended its Capture by the French, and its Conquest by the English.* By Louis de Boisselin, Knight of Malta. 3 vols. 4to. G. & J. Robinson, London. 1804.

IN order to form a proper estimate of the importance of the island of Malta in the present crisis of European affairs, it is necessary to consider the wide field of action which the Mediterranean presents to the ambition of the present Ruler of France. Had his darling system of aggrandizement been somewhat more equivocal, had he even availed himself of common diplomatic address in masking the designs he had in view, the 'miserable rock,' which he has himself taught us to appretiate, might now have been instrumental in forwarding those plans which, we trust, it will long enable us to baffle. But scarcely was the ratification of the treaty of Amiens exchanged, before the whole of his alarming system became visible. The unwarrantable acquisition of territory on the continent, the insulting report of Sebastiani's mission, and his own barefaced avowal to the British Ambassador, clearly evinced, that his extreme anxiety to dispossess us of this post, previous even to the fulfilment of certain preliminary stipulations, arose from another motive than the mere desire of securing the tenth article of the treaty.

With respect to the stipulation which provided for the re-establishment of the ancient government, it was evident, that under the existing circumstances it could not possibly take effect; for the resources of the Order, almost annihilated by the alienation of its continental estates, were totally inadequate to the support of such an establishment: the Knights had lost (if, indeed, they ever possessed) the confidence of the Maltese; and even if these formidable objections had been obviated, an insurmountable bar still remained, in a want of security for the future independence of the island. Whilst his Consular Majesty was imperiously demanding the execution of the 'treaty of Amiens, the whole treaty of Amiens, and nothing but the treaty of Amiens,' he forgot, or at least did not chuse to remember, that he required what it was not possible for Britain to grant; for there were certain powers called upon, in terms of the treaty, to guarantee the tenth article. Of these, some, it is true, nominally acceded to the measure; but they did so at the very moment when they were appropriating those estates without which the Order of St John could not possibly

sibly subsist; and Russia, the greatest of them all, positively refused to accede to the proposal, except upon conditions totally inconsistent with the letter and the spirit of the article. Under these circumstances, had Great Britain consented to evacuate the island, what would have been the probable consequences? Excluded for ever from the Mediterranean, we should soon have heard, with unavailing regret, of our faithful ally the king of Naples being superseded in the throne of the Two Sicilies by some member of the new royal family of France. Deprived of the means of exercising any effectual interference, Britain must have remained a quiet spectator of the dismemberment and partition of the Turkish empire, the colonization of Egypt, and the subjugation of Barbary. Amidst the ardour of conquest, France would not have overlooked the opportunity afforded her of acquiring consequence as a maritime power. Her monopoly of the Levant trade would have afforded a constant supply of seamen; and the Toulon fleet, no longer overawed by the detested presence of a Nelson, might have cruised unmolested from the Straits of Gibraltar to the banks of the Black sea. It may be said, indeed, that the jealousy of Russia would not have permitted her to remain a quiet spectator of all those usurpations; and the observation is probably just; but the mutual interest of the two powers might have dictated an arrangement by no means favourable to the general interests of Europe. Without speculating on the probable consequences of an attack upon our East-India possessions from the side of Egypt, we conceive that our mercantile and colonial interests would have had sufficient ground of alarm in witnessing either or both of the above enterprising powers exclusively possessed of the fertile shores of Egypt, Barbary, and the Morea.

In whatever light we view Malta, its value to this country cannot be too highly appreciated. As a military post, affording us the probable means of watching and defeating the designs of France, it is, at this period, inestimable; and as a commercial station, calculated to facilitate our intercourse with the Levant and Black sea, it possesses every advantage; for where can a more desirable situation be imagined for a depot, than an island placed in the centre of the Mediterranean, containing safe and capacious harbours, and possessing the most complete lazaretto in Europe?

Mons. de Boisgelin indeed regards this island in a very different light. In his estimation, it is no otherwise important than as it is connected with the Order to which he belongs. Like a true Knight of Malta, he labours to prove, that the age of chivalry is *not* gone; or, to use his own words, 'that the Order of Malta has for years past distinguished itself for piety and military exploits in as illustrious a manner as during the most renowned

ages of ancient chivalry.' Making every allowance for the prejudices of the author, we cannot conceive any thing more absurd, than his continued attempt to prove, throughout a work unwarrantably swelled out to three quarto volumes, that the abolition of the Order will be a real detriment to the interests of religion and humanity; and that its restoration is indispensably necessary to the happiness of the Maltese, who cannot possibly exist under any other government. Postponing, however, the consideration of this singular institution, we proceed to lay before our readers a short abstract of that part of the work which more immediately relates to the island.

Malta is sixty miles in circumference, twenty long, and twelve broad. It is mentioned by Homer in his *Odyssey*, under the name of *Hyperia*, and was originally inhabited, according to fabulous history, by a race of giants. About 1519 years before Christ, the Phœnicians, conceiving that it might be rendered a useful commercial station, seized upon the island, and established a colony on its shores. In process of time, it was taken possession of by the Greeks, from whom it passed successively into the hands of the Carthaginians, Romans, Vandals and Goths, Arabs, Normans, Germans, French, and Spaniards, with whom it remained until the year 1530. At that period, the Emperor Charles V. ceded the perpetual sovereignty of Malta, and its dependencies, together with the city of Tripoli, to the Knights Hospitallers of St John of Jerusalem, who, having been expelled from Rhodes by the Turks, were at this time wandering over the Mediterranean in quest of an asylum. The reasons which induced Charles to adopt this measure are thus stated by the author.

* This politic prince, whose prudence equalled his activity, considered these possessions in a very different light from his predecessors, who had ever regarded them as of small importance to their dominions. —To command the Mediterranean, to secure the coast of Sicily, to threaten that of Africa, and to interrupt at pleasure all commercial intercourse between the two seas, in the centre of which they were placed, were objects of sufficient importance for Charles to be well aware of the great advantage of possessing these two islands. His policy alone would have induced him to profit by such a circumstance; but his foresight extended still further: for, fearing these important places might, in future, be taken from his successors, who, being obliged to attend to the centre of their dominions, or to the opposite confines, might not be able to keep a force sufficient for the defence of Malta and Goza; and, at the same time, reflecting of what importance such a conquest would be to his enemies in the political balance of Europe; he determined to place them in the hands of some power, which would be particularly interested in preserving them, and which, without being able to annoy any other state, would be respected by all.

Added.

Added to these considerations, he found it very advantageous to save the expence of 340,000 French livres, which his treasury was obliged to furnish for the maintenance of the different garrisons it was necessary to keep in the forts and castles of Malta, Goza, &c. He in consequence made choice of the order of St John of Jerusalem, which, having been driven from its principal place of residence, had been wandering on the coast of Italy.⁹

The author having examined the different monuments of antiquity, which he illustrates by plates, proceeds to a topographical description of the islands. Malta at present contains two cities, and twenty-two *casals* or villages. Valletta, the present seat of government, so called from the celebrated Jean de la Vallette, its founder, was built after the memorable siege of St Elmo. It is situate on a peninsula formed by two admirable harbours, one of which is exclusively appropriated to a quarantine establishment, on a very extensive scale. The town and harbours are defended by the most stupendous fortifications, of which a very faint idea is conveyed by the indifferent plates accompanying the author's description. Yet, to the eternal disgrace of the Knights of St John; these fortifications, calculated, as we know by experience, to resist every thing but famine, were, in 1798, surrendered without even the shadow of resistance. Whether the French owed their success on this occasion to the imbecility of the government, or to the treachery of certain individuals of the Order, the conclusion is the same, that the Knights of Malta are unworthy of being again entrusted with so valuable a deposit.

Valletta is distinguished by a general air of regularity and grandeur, and by the number and magnificence of its public buildings. Of these the most remarkable are the palace of the Grand Master, the hotels of the different languages which composed the Order, the library, the hospitals, and the church of St John. The magnificent ornaments which adorn the latter are minutely described. 'None of these, however,' says the author, 'were spared by the French; who, from the first moment of their arrival, began to carry away, during the night, every thing made of gold or silver, in order to convert them into ingots.'

Amongst the paintings which adorn this church, is noticed the celebrated altar-piece of Michael Angelo Caravaggio; but we are surprised that the industrious author omits a very curious anecdote connected with it, which is related in the life of that artist. It is said, that whilst Caravaggio was pursuing his studies in Italy, he happened to quarrel with a person of some distinction, who availed himself of the superiority of his rank to evade the challenge of the painter. Quitting the place, Caravag-

gio took a voyage to Malta, where he remained a considerable time, and ingratiated himself so much with the Knights, as to obtain permission to wear the badge of the Order, or, in other words, to be admitted a '*Chevalier de Grace*.' In gratitude for this favour, Caravaggio presented his benefactors with the picture in question, the subject of which is the beheading of St John. It is added, that Caravaggio, on his return to Italy, renewed the challenge, and fought and conquered his antagonist, who had now no excuse to urge for refusing to meet him.

In concluding his description of Valletta, Mr Boisselin introduces a passage which not only betrays his own ignorance in regard to the present state of the island, but is calculated to mislead the reader.

'It is as yet impossible to say, with any degree of certainty, what still remains of the different monuments of the arts in the city Valletta: though it is but too well known, that every article in gold and silver has been carried off from the churches, and the ancient municipal government suppressed, though so essential to the preservation of the inhabitants, that it would have been infinitely more prudent to have permitted it to have remained in its original form.'

We are unwilling to accuse the author of studious misrepresentation, but we cannot acquit him of very culpable negligence. In a work published under British auspices, and dedicated to the British navy, the reader has a right to expect accurate information in relation to the present state of the island of Malta. If the republican army was guilty of excesses, it is well known, that for the space of nearly four years preceding the publication of this book, Malta and its dependencies had remained under English protection; and during that time the natives not only enjoyed the full and undisturbed exercise of their religion and laws, but attained a degree of consequence in society which they never before held, and which must have rendered them very unfit for returning under the yoke of their former government. We can assert from our own knowledge, that every usage has been observed, and every prejudice humoured, with the most scrupulous exactness; and if any change has been effected in the administration of the civil government, it consists in the admission of the Maltese to many privileges, from which, under the government of the Knights, they were uniformly excluded. In asserting that our countrymen have adopted a very different line of conduct from the French, we do not mean to pronounce an eulogium on British forbearance, but merely to give our readers that information which M. de Boisselin has withheld, and to guard them against insinuations which occur in more places than one.

Citta Vecchia, or, as it is styled throughout this work, the 'Old City,' was formerly the capital, and is still the seat of the bishopric. The cathedral is a handsome building, and contains some good paintings by Matthias Preti, commonly surnamed '*Calabrese*.' The catacombs in the neighbourhood of the town are very extensive, and branch out into streets in all directions. It is supposed that they were originally intended for sepulchres; but it appears that the inhabitants have frequently taken refuge in them upon occasion of persecution or invasion.

The face of the country presents little variety, and the casals do not abound in objects of curiosity. In making the tour of the island, we observe several bays, the most remarkable of which are those of St Paul, so named from its being supposed to be the place where the apostle suffered shipwreck; and of Marsafuiocco, where the Turks first effected a landing in 1565. As the island is accessible on all sides except from the south, where the rocks are extremely steep and rugged, armed towers have been erected at convenient distances; and a singular mode of defence (which, by the way, our author has quite overlooked) has been adopted in those parts where an enemy might most easily disembark. We allude to the stone mortars which are hewn out of the solid rock, and which, after being properly charged with powder, are calculated to convey the loose stones, or other substances with which they may be filled, to the distance of nearly half a league. Were such a discharge to take effect, it might certainly do great execution in sinking boats, and otherwise annoying the enemy; but no great damage can be apprehended from a mortar which can, of course, bear only upon one point.

The island of Goza is separated from Malta by a narrow passage, somewhat more than a league in breadth, in the middle of which is situated the small uninhabited island of Comino. Goza is about twelve miles in length, and six in breadth. It contains only one town, called Rabbato, where the governor resides, and six casals. The only fortrefs of any consequence in the interior of the island is that of Rabbato; and the principal landing-place (for there is no harbour) is protected by Fort Chambray, which is so named from an individual of the Order, at whose expence it was begun. The coast is surrounded with towers, which, in case of alarm, can readily communicate with those of Malta. The soil of Goza is, in general, deeper and more productive than that of Malta, and the face of the country wears a more pleasing aspect. Of the natural productions of this island, the most remarkable is a plant known by the name of *Fungus Melitenfis*, which was formerly held in such estimation, on account of its medicinal qualities, that the Grand Masters reserved to themselves the ex-

clusive privilege of collecting it. It is chiefly found on a small rock, at the distance of forty or fifty fathoms from the shore, which is accessible only by means of ropes, to which a small tub is attached. This plant, which is bisexual, of the class *monœcia monandria*, appears in December and January, and arrives at maturity in April. It is said to have been used with success in cases of dysentery, hemorrhages, and other disorders in which styptics are required; but its efficacy has not been proved to be such as to supersede the use of more common remedies.

The fifth chapter contains an amusing, and, upon the whole, a pretty just description of the Maltese, their dress, ancient customs, &c. The author does not draw a very flattering picture of the natives, whom he describes as short, strong, plump, with curled hair, flat noses, turned-up lips, and resembling in colour the inhabitants of the States of Barbary. He admits that they are industrious, active, faithful, economical, courageous, and excellent sailors; but accuses them of being mercenary, passionate, jealous, vindictive, and addicted to thieving. The language of Malta is a corrupt dialect of the Arabic, with a considerable admixture of Italian and other languages; and though it is probable that the Arabic alphabet was formerly in use there, it is now completely forgotten. Those, therefore, who attempt to write the language, are obliged to have recourse to the European character, and to express, as nearly as possible, the pronunciation of the word employed. As the Italian, however, is now generally understood, the business of the island is conducted through the medium of that language. It has been supposed, that the principles of the ancient Punic might still be found in the Patois of Malta; but it does not appear that the latter has afforded any assistance in deciphering the Phœnician inscriptions on the different monuments and medals found in the island.

The following extract, relative to the soil, culture, and productions of Malta, will, we conceive, be interesting to our readers. The author, who borrows very liberally from a little French work, entitled, '*Malte, par un Voyageur François*,' has, in this instance, translated the passage *verbatim*.

* The ground in Malta is never suffered to remain uncultivated, but constantly sown every year. Each season yields its peculiar crop, and the produce is very abundant. The ground, in land of a middling quality, yields from sixteen to twenty for one; whilst that on good land affords thirty eight, and on rich spots sixty four. The island of Sicily is by no means equally fertile.

* The colour of the soil varies in the different districts of Malta, and it is seldom more than one foot deep above the surface of the rock. It is irrigated chiefly by the night dew; but the rock being porous, retains the damp, and keeps the ground constantly fresh. The earth is always removed

moved once in ten years, in order to clear the rock of a thick crust, which forms, and prevents the moisture from sufficiently penetrating. When the ground is properly prepared, it produces, the first year, water melons and garden plants; the next, an excellent fruit, which is preserved during the winter, and distinguished by the name of Maltese melons; and afterwards, barley, the straw of which furnishes fodder for the cattle. The ground is ploughed the third year, and planted with cotton; and the fourth sown with corn. The land afterwards yields these different crops alternately; but care is always taken to prepare the ground, particularly the year the cotton tree is to come into bearing, when it is necessary to reduce the earth into a kind of powder.

Three species of cotton are cultivated in Malta; one natural to the country, another from Siam, and the third of a cinnamon colour, called Antilles cotton. These are all sown in the month of April, and the top of the plant is cut in the beginning of September, that the fruit may grow larger. It is gathered in October, when it begins to open, which is a sign that it is then sufficiently ripe. It is sown in the following manner: A hole some inches deep is made in the ground, which is afterwards filled with water, and when it is sufficiently soaked, the seed is put into it, and covered over, without being watered again till it begins to shoot out of the ground. The plant presently grows to the height of from ten to fifteen inches, and blooms in the month of August.

Wheat is sown in November, after the ground has been ploughed three times, and cut in the beginning of June: barley likewise is sown in the former month, and reaped in May. There is a kind of corn in Malta, called *Tommon*, which grows in poor land; and the bread made of the flour is particularly white. This grain is sown in February.

Each field is enclosed with walls, to shelter the different plants from the effects of the wind, rains, and storms, during the spring and autumn.

Necessity, the parent of industry, has taught the Maltese to make a sort of artificial land in the barren parts of the island. They begin by levelling the rock; which, however, they allow to incline a little, that all superabundant water may run off. They then heap together some stones broken into small pieces of an irregular form, which they place about a foot high, and cover with a bed of the same stones nearly reduced to powder. On this, they first place a bed of earth, brought either from other parts of the island, or taken out of the clefts of the rocks; then a bed of dung, and afterwards a second bed of earth. Such, indeed, is the perseverance of the proprietors of this ground, that it becomes in time equally fertile with natural land.

Malta and Goza produce fruits of exquisite flavour, excellent roots, and very fine flowers; the roses in particular are much sweeter scented than in any other country. These islands likewise yield great quantities of *comino*, *aniseed*, *kalimagnum*, *loricella*, *silla*, and *lichen*: this last plant grows on the rocks exposed to the north, and is used for dyeing the amaranthus colour. *Silla* is peculiar to Malta and Goza,
and

and is of better quality in the last-mentioned island. This plant grows to the height of five feet, and bears a red flower. Tournefort calls it *hedyfarum clypeatum flore suaviter rubente*. It serves for fodder, is sown in June, and mowed in May. The same ground is afterwards filled with corn, and the following year the silla comes up again of itself; it likewise shoots out the third year, but has then lost all strength and quality.'

The chief articles of exportation are, cotton thread, cummin seed, barilla ashes, wrought stones for pavement, oranges of an excellent quality, orange-flower water, salt, and honey: to these may be added gold-chains and fillagree, in the manufacture of which they are only excelled by the Venetians and Portuguese. The only other branch of manufacture established at Malta, is that of a cotton stuff, which is used by the peasantry for clothing.

The breed of dogs, for which Malta was remarkable even in the time of the Romans, is now almost extinct: they are of an extremely diminutive size, but well proportioned, and covered with long silky hair. The asses reared in the island are remarkable for strength and beauty: of these several have of late been imported to Britain; a circumstance which has tended so much to increase the price of these animals at Malta, that no less a sum than 35*l*. Sterling has been known to be paid for one jack-ass.

As a great proportion of Malta and Goza is unproductive, and of that which is cultivated a considerable part is employed in the rearing of cotton, these islands do not produce much more than one fourth part of the corn consumed by their numerous inhabitants. Supplies are therefore from time to time derived from Sicily, the coast of Barbary, and other parts of the Mediterranean. Under the government of the Order, and even prior to its establishment at Malta, it was thought expedient to provide against the inconveniences which might arise from trusting to casual supplies. All private traffic in corn was therefore prohibited, and certain magistrates styled *Jurats*, were exclusively charged with the purchase of grain for the consumption of the whole island, who sold it out to the inhabitants at a stated price. The grain was preserved in large pits dug in the rock, with beds of wood and straw, on which it was spread. When these were filled, they were closed by a large stone, which was plastered over with puzzolana; and the air being thus excluded, the corn might be preserved for a great length of time. The author probably does not know, that under the present government it has been found an expedient, and even a popular measure, to continue this mode of supply. The price at which the inhabitants are furnished with corn is, on the average, considerably less than the retail price in Sicily

Sicily and Italy; and if the government occasionally sustain a loss by the transaction, it is compensated by a correspondent gain in plentiful years, though, upon the whole, a small profit is derived, whilst the people are certain of being supplied at a moderate price.

M. de Boisgelin argues in favour of the mildness of the government of the Knights, from the great increase of population since the period of their arrival in 1530, to that of their departure in 1798. According to his statement, the number at the former period did not exceed 15,000, whereas at the latter it exceeded 100,000. The increase, we admit, is immense; but other causes may be assigned, besides the mildness and generosity of the government. A constant succession of upwards of 500 rich individuals, from almost every Roman Catholic country in Europe, must necessarily have attracted a vast number of retainers and followers; and adventurers from different parts of the Mediterranean were no doubt induced, by the hope of plunder, to embark on board the galleys of the Order. But the author himself, in a former part of the work, assigns a better reason than mere conjecture. 'The Maltese,' says he, 'are remarkably sober; a clove of garlic, or an onion, anchovies dipped in oil, and salt fish, being their usual diet.' If, as the author asserts, the Knights of Malta expended large sums gratuitously in support of this overgrown population, we cannot help thinking, that their generosity would have been much more usefully employed in encouraging commerce and manufactures, and in improving the face of a country where much remains to be done. If we were to argue from the proportion of population alone, we must infer, that the government of Naples is greatly milder than that of Great Britain, and that the Chinese enjoy the mildest government in the world. But if the Maltese really enjoyed more happiness under the Order than they can possibly expect under any other government, they have proved themselves either blind to their own interest, or the most ungrateful people upon earth; for it is well known, that at a period when active measures were taken for the restitution of the island to the Knights of St John, the great bulk of the people, so far from testifying their joy, deprecated the return of the Order as the greatest of possible calamities.

The following observations relative to the climate of Malta are the result of experiments made by the celebrated naturalist Dolomieu, whom the author describes as a very learned man, much more remarkable for his great knowledge, than for his attachment to the Order.

'Reaumur's thermometer in Malta, during the summer, is generally below 25 degrees, and scarcely ever above 28. In winter, it is very seldom

seldom lower than 8 degrees below * the freezing point. Heat and cold are not most felt when the thermometer is at either of the two extreme points of our temperature ; for there is an almost constant contrast between our sensations and the instruments which measure the true temperature of the air, between sensible and real heat.

‘ The different directions of the wind produce an instantaneous change from cold to heat and from heat to cold. North or north-west winds always occasion cold ; and a south wind constantly brings heat. The violence with which they blow modifies the sensations they cause ; and those produced by these winds become still stronger, because the atmosphere they put in motion is analogous to what we feel from real heat and extreme cold.

‘ A north-west wind purifies the air in the greatest degree ; a north-east wind is not quite so pure ; and it becomes infinitely less so when it changes to the south-east or the south ; but it grows rather better when it veers to the south-west, particularly if the sea be much agitated. The north-west wind is purified by the vast expanse of sea which it passes over ; but the north wind would suffer some degree of alteration from Italy and Sicily, if the great vegetation in those fine countries did not tend to purify the atmosphere.

‘ When the wind changes to the south, it becomes dangerous, owing to its having passed over the barren burning continent of Africa, where there is scarcely any vegetation, and where the heat is so intense, that every thing susceptible of rarefaction in the earth produces exhalations, which enter into the atmosphere. It is not purified by passing over the sea, because the channel is narrow, and being sheltered by the land, the water is not sufficiently agitated to absorb by its motion the mephitic miasmata with which the air is impregnated.

‘ The extreme cold during winter is produced by the pure air which blows from the north. The winds act upon us by their great violence, which continually renews the volume of air that surrounds us. The cold thus produced is easily avoided, by not exposing ourselves to the constant currents of air and violence of the wind.

‘ In summer, when the wind blows from the south-east, the usual purity of the air is so greatly altered, that were it to change a few degrees more, it would be impossible to breathe ; and the insensible perspiration of the body would form so thick an atmosphere, that suffocation must infallibly ensue. The south winds never blow long at a time, seldom lasting more than three or four days. They are frequently succeeded by a calm, during which the heat is also very great, but much less oppressive and suffocating, though the thermometer frequently shews a much higher degree of real heat. The air is then infinitely more pure ; and the sea-breezes during the night, and indeed some part of the day, greatly refresh the atmosphere. This air is purified by passing over the water, which it gently agitates. There is also

* The translator of this passage is certainly egregiously wrong. The words of Dolomieu are, ‘ L’hiver, il est très rarement au dessous de 8 degrés sur la point de congelation. ’

also a morning land breeze, which, though less pure, cools the air in some degree.

' When the wind changes suddenly from the south to the north, we feel an astonishing lightness, our sensations are inexpressibly pleasant, and we breathe with the greatest freedom. It is a certain fact, that, on these occasions, the air becomes 20 or 25 degrees more pure, though there is no variation in the thermometer.

' Nothing is more salutary during the Sirocco than iced beverages : they revive the spirits, strengthen the body, and assist digestion. Snow is therefore considered at Malta as one of the first necessities of life. It is brought from Sicily, and administered to the sick. Whenever there is a scarcity of this article, all that remains in the ice-houses is entirely reserved for the use of the hospitals.

' There is another method much in vogue among the young Maltese, who, in order to guard against the ill effects of the Sirocco, plunge into water, and come out by degrees, without drying themselves, that the humidity on the skin may evaporate, by which means the vapour carries off not only some part of the heat of the body, (it being an excellent conductor), but at the same time the miasmata of our insensible perspiration.'

The first part of the work concludes with the natural history of the island, a catalogue of the plants, and a long dissertation on the propagation of the fig-tree.

The second, and by much the larger division of this work, relates chiefly to the constitution and history of the Order of St John.

It is certainly a most extraordinary fact, that, at the end of the eighteenth century, there should still exist a society of men, whose members, uniting the most discordant characters, professed at once to adopt the austerities of a religious order, and to wage perpetual war with the enemies of the Christian faith. Yet such was the Order of St John of Jerusalem, which, of all the institutions to which the crusades have given rise, exhibited the most heterogeneous mixture of Christian humility and temporal pride; —the most singular attempt, to reconcile the possession of rich benefices and luxurious indulgences, with vows of poverty and professions of self-denial.

As the eloquent Vertot had so ably preceded M. de Boisgelin in the history of this pious fraternity, we cannot help thinking that the latter would have performed a more essential service to his Order, as well as to the public, had he referred the reader to a work infinitely better calculated than the present to impress the mind with exalted ideas of the piety and valour of the Knights of Malta. It is true that Vertot does not bring down the history of the Order to the present day; he concludes in good time: but, had he been now alive we scarcely think he would have rivalled our author in
his

his attempt to rescue the Knights of the 18th century from the imputation of degeneracy ; at least we may venture to say, that, with all his ingenuity, he would not have been more successful. But a description of the siege of St Elmo is an excellent *item* in the composition of a book ; and the chevalier will pardon us for suspecting, that some motive, less disinterested than his concern for the glory of the Order, may have induced him to extend a work to three quarto volumes, the whole information of which might have been comprised in a moderate *octavo*. To such of our readers as have not had occasion to consider the constitution of the Order of Malta, the following summary abstract may not be unacceptable.

This Order was instituted about the end of the eleventh century, and was originally composed of a few charitable individuals, who established a house at Jerusalem for the reception of the sick and wounded crusaders. This society having expressed a desire to adopt a regular habit, the Pope invested them with that of St Augustin ; and from that time their successors have been required to take the vows of chastity, obedience, and poverty. At this period the members of the society were styled 'Hospitallers Brothers of St John the Baptist of Jerusalem.' Extending their cares beyond the mere recovery of their distressed guests, they soon obtained permission to take up arms, in order to defend them from the infidels, in their journey to the nearest port, whence they might embark for Europe. Upon this occasion they took an oath, before the Patriarch of Constantinople, 'to defend the holy sepulchre to the last drop of their blood, and to combat the infidels wherever they should meet them.' The order having thus become military, increased both in numbers and importance ; and received large donations and bequests from almost every country in Christendom. In process of time, the Knights agreed to divide themselves into seven different languages, of which the three first were French, viz. those of Provence, Auvergne, and France ; the four others were those of Italy, Arragon, England, and Germany. The language of Castile was afterwards added ; and that of England, abolished at the Reformation, was afterwards replaced by the Anglo-Bavarian.

The Order was divided into three classes. The first consisted solely of such persons as could bring indubitable proofs of their descent from noble ancestors. The Knights of this class, called '*Chevaliers de Justice*,' enjoyed the rich commanderies, and other valuable pieces of preferment : from amongst their number the Grand Masters were necessarily elected ; and in them, indeed, was vested the whole authority of the Order.—The second class comprehended the Priests of the Order, some of whom were required

quired to officiate in the conventual church, whilst others were called upon to attend as chaplains in the galleys, or to reside on the benefices in the different priories scattered over the Continent. From this class were elected the Bishop of Malta and the Prior of the Conventual Church of St John, who were next in rank to the Grand Master or his Vicegerent.—The members of the third class were styled '*Servans d'armes*,' and seem to have come under the description of 'Squires.' They were required to attend the Knights both in the hospital and in their caravans or expeditions against the infidels. The two last-mentioned classes, though not required to be noble, were obliged to prove that they were born of respectable parents, who had never been in servitude, or followed any low art or trade. They enjoyed certain commanderies of smaller value, and had equally the privilege of voting at the election of a Grand Master with the Knights of the first class.

For some time after the institution of the Order, no formal proof was required to establish the pretensions of candidates to the claim of nobility: nothing further was, in general, deemed necessary than the names of their father and mother, the purity of whose blood was seldom called in question. But when the intermarriages of nobles with plebeians became more frequent, the Knights of St John, jealous of the purity of their Order, instituted certain forms to ascertain the legitimacy and descent of their candidates. These consisted of oral testimony, the examination of charters and title-deeds, and other modes of investigation.

Different degrees of proof were required by the several languages, as well as different degrees of antiquity. For example, a Knight of the Italian language was required to establish the nobility of his father and mother, grandfather and grandmother, or, (to use the technical phrase), to prove four quarters; but for each of these quarters two hundred years of nobility were necessary.—The candidate for admission to the language of Germany was required to prove sixteen quarters! When the different proofs of nobility were established, the candidate might be admitted at different ages. His residence at Malta was seldom required before the age of twenty, and was frequently dispensed with for a year or two more. During his noviciate, the candidate was required to serve in the galleys during four expeditions or *caravans* against the infidels; and at the expiry of that term of probation his profession took place; a ceremony which was attended with great parade and solemnity. The form of admission is detailed with great precision at p. 222. of the second volume.

The author concludes his work with an account of the manner in which the island was delivered up to the French army in 1798;

examines the causes which occasioned the revolt of the Maltese; and details the particulars of the blockade and surrender of Malta to Great Britain.

It is singular enough, that whilst he enumerates the excesses committed by the French army, such as the plunder of their churches, the impressing and carrying off to Egypt numbers of the inhabitants to serve in the army and navy, &c. he enters (p. 82.) into a formal vindication of their Commander in Chief.—This is the only part of the work where we have met with the name of Bonaparte, and it is mentioned with respect.—Does this proceed from the excess of the chevalier's charity and forgiveness? or does he look for the restoration of his Order to the person who overthrew it?

Such are the outlines of M. de Boisgelin's book. If, from the nature of the work, we did not expect much originality, we at least hoped for a perspicuous arrangement of facts. But, even as a compilation, this book is destitute of merit; and throughout we meet with numberless passages of considerable length, which are literally transcribed from the authorities. The little work, entitled, '*Malte, par un Voyageur François,*' is completely incorporated in the first part of the work: and *Malta illustrata*, and *Vertot*, have afforded the chevalier many passages.

We have already said, that the essential information contained in the work might have been comprised in one octavo volume; but we may safely add, that the work, as it now stands, when stripped of its appendix, its pompous catalogue of authorities, and other useless *et ceteras*, would not have exceeded the bounds of one moderate quarto. The chart of the islands is absurdly large. Had it been executed on a scale of one tenth of its present size, it would have answered the purpose equally well, without unnecessarily swelling the first volume to an inconvenient bulk. The subjects of the plates are in general ill chosen, and very badly executed. The costumes of the inhabitants, and views of the island, would have been more interesting to the reader than portraits of the Grand Masters. The only original thing in the book, and almost the only amusing one, is the author's zeal for his Order, and his anxiety that the island should be restored to it. Is it possible that any man of common sense should fail to see, that the institution has already outlived its utility, and is daily becoming ridiculous? It would not be more absurd, to give an island to a lodge of Free Masons, than to such a corporation as the Knights of Malta.

ART. XVII. *The History of France, from the time of its Conquest by Clovis, A. D. 486.* By the Rev. Alexander Ranken, D. D. one of the Ministers of Glasgow. Vol. 1. 2. & 3. London, Cadell & Davies. 1801, 1802, and 1804.

THOUGH the records of every man's own country, are those which he reads with most curiosity and delight; yet considering the matter as citizens of the world, and divesting ourselves of local partialities, we cannot conceive that the history of any European nation can enter into competition, in point of interest and importance, with that of France. If we look at the other states of the Continent, some of them have come into the vineyard, as it were, at the eleventh hour, and were barbarians but the other day; some again have long ago run out their race of fame, and protracted from age to age an existence of gradual decay; some have never cultivated letters, and others never been great in arms; some have been too miserable to produce legislators, and others too happy to breed heroes; some have had meagre annalists to chronicle great exploits, and others great historians to record their petty transactions. But, as the duration of the French empire for thirteen centuries far transcends the credible history of any other state, so, the events by which that period is filled up, are more various and important, have been related by more numerous and agreeable writers, and given scope to the talents and virtues of more distinguished men, than any other; while the subject presents a still more interesting spectacle to the British philosopher, as the source from which much of our polity and jurisprudence, much of our literature, and almost the whole of our system of manners, has been derived. No man can set up a claim to the title of a literary or philosophical antiquarian, who has not drank pretty largely from the copious stream of French history; a stream so copious indeed, that the most diligent among the learned natives themselves have never been able, even in its partial branches, to exhaust it; and it is certainly an undertaking of no ordinary boldness in the author of the work before us, to promise the public a history of France, comprehending not civil and military transactions alone, but the religion, jurisprudence, learning, arts, commerce, language, and customs of every age, from the invasion of Clovis. It will be readily seen, that the plan of this work corresponds with that of Dr Henry in his History of Britain. Dr Ranken shall speak for himself.

‘Many years have elapsed since I began my inquiries into French history, and to write essays upon that subject. The plan which I pre-

ferred when I resolved to publish, required both that these essays should be considerably altered in their form, and that others more recently composed should be added: this will account for that variety which may appear in the style. The plan was not suggested by Dr Henry's History of Great Britain; but in attempting to arrange the several essays afterwards, a similarity was observed; and, on farther deliberation, I resolved to adopt his plan, and proceed in composing what was then wanting to complete it. I admire his work, and *will* be content if I shall be thought to have successfully imitated it. '

There are three methods which an historian may pursue with respect to those great subjects, of laws, manners, and the rest, which are so much more interesting, for the most part, than a mere narrative of transactions, and for the sake of which alone, in many periods, civil transactions are worth knowing. He may interweave them with the body of his narration, either incidentally, as Herodotus, Froissart, and most writers of contemporary history have done, or by way of illustration, like the greater part of modern writers; or, secondly, he may station them in preliminary books, or reserve them for appendixes, wherever they bear only a general connexion with the main body of the work, still pursuing the former method, where it is essential to discuss the causes, or elucidate the circumstances of particular events. Such is the plan of Robertson in his Charles V, and of Hume in his History of England. The arrangement of Gibbon is compounded of these two kinds, but partakes much more of the former. The third scheme of disposition is that of Henry and Dr Ranken; in which every distinct subject forms a distinct chapter, and the corresponding chapters in each successive volume may be read as a continued independent account of the matters to which they relate.

Of these, the first is beyond comparison the most pleasing to those who read history as a source of amusement. The fatiguing monotony of battles and sieges in war, cabals and negotiations in peace, so palls upon the mind in almost every historical work, that intermingled passages, which illustrate laws, literature, or manners, shew like Oases in the great desert, and afford resting-places to the weary reader, from which he may launch out again, refreshed, into the tedious wilderness which he is traversing. These passages are in many of the best authors the more precious, that they are very rare. Man, so studious to record his crimes and his miseries, casts a careless eye, it would seem, upon the laws which protect, the arts which adorn, and the commerce which enriches him. It was not indeed till lately, that the great and leading uses of historical knowledge seem to have been well understood, or that philosophy, with Montesquieu as her high priest, taught us to consider the progress of the species, as of more importance

portance than the pedigree of kings, and commissioned those painful, though sometimes refractory drudges, the antiquarians, to labour as her pioneers in the collection of facts, which her more favoured sons must afterwards combine and generalize. Hence, in our modern histories, the subjects of which we have been speaking bear a much greater proportion to the main branch than used to be the case; and for that reason cannot so easily be incorporated with it, without distracting us by frequent transitions, losing that time which is required to recal our ideas, and bring our minds to the proper focus, and rendering it difficult either to refer to particular passages, or to study collectively any particular subject.

To this confused, immethodical disposition, the third plan, that of the work before us is completely opposed. It seems indeed at first to be the very antipodes of confusion: every genus has its chapter, and every species its section. Yet we question whether this extreme accuracy of arrangement does not sometimes defeat itself. Many facts are to be found, of which we cannot well say whether they should be referred to the civil or ecclesiastical departments, to the history of science or of art. Thus, the disputes between Henry II. and Becket are related by Dr Henry under the head of Religion, (vol. 3. ch. 2.); while the excommunication of Robert, King of France, A. D. 997, is placed by Dr Ranken (vol. 3. p. 21.) in the chapter destined to Civil and Military Events. But what is more material, there is great danger that too rigorous an adherence to the systematic division may produce a jejune spiritless performance, *sine succo et sanguine*, a mere anatomy of history, more resembling the dry preciseness of an index or chronological table, than a skilful and harmonious combination of the several parts of the work. Such is, perhaps, in some degree, the case with Dr Henry's production, but eminently so with the present history. Another objection is, that a larger field is entered upon, than any one man can reasonably hope to explore; and that the writer is naturally induced, by the very disposition which he adopts, to dwell with unnecessary minuteness upon many subjects, which, as they reflect little light upon civil history, and furnish little towards philosophical views of the species, ought to be seldom and slightly noticed. Such are long details of theological schisms and heresies, which properly fall under another province, and impose a needless obligation on the writer, the fulfilment of which will perhaps excite the gratitude of few of his readers. Such too is the history of language, a subject extremely interesting in itself, but, for the same reasons, rather injudiciously mingled with very different matter. Such, too, but much worse, is the head of Biography, which Dr R. has introduced into his two

former volumes, but has prudently retrenched in the third. When we found seven and a half pages allotted to the life of Sidonius Apollinaris, and eleven to that of Hincmar, we trembled at the proportional extent of these articles, when Dr R. should arrive at the times of Thuanus, Corneille, and Des Cartes.

The second of the three methods above pointed out is, therefore, the one which we consider as best suited to the greater part of histories. In the standard works of Hume and Robertson, while the chain of events is never broken in upon by long dissertations, the narrative is agreeably varied and perspicuously illustrated by occasional digressions; and the general views of the state of society are introduced in their proper places, without a tedious accuracy, or an attempt to exhaust materials of an indefinite extent.

After this criticism on the plan of Dr R. it remains to see, whether he has adequately fulfilled what he has undertaken. There are two kinds of merit to which an historian may aspire. The first and rarest, is to exhibit a luminous picture of human nature in the age and country upon which he is employed, to point out the causes and results of public transactions, to deduce principles of general policy and moral philosophy, to distinguish the effects of what may be deemed accident, from the permanent and essential operations of general causes. The second is, to accumulate facts with diligence, to select them with judgement, to list them with impartiality, and to relate them with perspicuity. To the former of these excellences, it is perfectly evident that Dr R. has no pretensions: he is neither a Machiavel nor a Gibbon: the statesman will not be guided by his maxims, nor the philosopher enlightened by his speculations. It would be much, however, if he had merited the praise of diligence and accuracy; we regret to say, that we have found him somewhat deficient in this respect also.

The first volume contains the History of France from Clovis to the death of Charlemagne. 'I have not attempted,' says Dr R. in his preface, 'to carry the History of France farther back than the conquest of it by Clovis.' He has thought it necessary, however, to deviate considerably from this rule, and presents us, in almost every chapter except the first, with copious accounts, not only of Gaul during the Roman dominion, but, as we shall see, of the Romans themselves. In the very outset, we have a calculation of the populousness of ancient Gaul at the æra of Cæsar's invasion. Upon this subject we had prepared some observations, which we are obliged to suppress for want of room; and can only say, that, on the whole, we consider Dr R.'s estimate as quite hyperbolical and unfounded. If the essay of Hume had not long since convinced us, the late work of Mr Malthus would have put
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it out of doubt, that a country which at present hardly feeds 36,000,000 in a high state of agricultural improvement, was not likely to be the abode of half that number, when it was full of morasses and forests, and when the climate, as there is reason to think, sympathized with the wildness of the soil and the rudeness of the inhabitants.

During the period comprised in this first volume, France, as is well known, was governed by the Merovingian dynasty, which expired about the middle of the eighth century, and gave way to Pepin, and his son Charlemagne. There were three-and-thirty of these monarchs, great and small, without reckoning the four from Pharamond to Clovis, who, like the four first lines of the *Æneid*, *Ille ego*, have a doubtful sort of claim to authenticity, and are put on or struck off according to the fancy of the author. As to their manner of life, they maintained an oriental establishment of wives and concubines, put out the eyes of their brothers and nephews when they came in their way, were very much afraid of the bishops, drove about the streets of Paris in a waggon drawn by buffaloes, trusted the management of their affairs to their Mayors of the Palace, and wore very long hair*. This singular faculty of propagating long-haired children ran in the family of Merovæus: their young Highnesses were known by it, like the Ogre's children by their crowns, or Prince Cherry and Princess Fair-star by combing pearls out of their locks. Like Samson of old, their whole strength lay in this hair; the moment one of them was shaved there was an end of him; not a Frank had instinct enough to own such a wight for the true prince. We cannot indeed say much for the inner lining of the skull in these shepherds of the people. They acquired the name of *insensati*, *faineans*, or *fools*. This was not a libel, a pasquinade, an impertinent sally of plebeian wit. A grave chronicler, as dry as dry may be, relates this little circumstance in their characters as a matter of course. *Post Dagobertum, regnavit Daniel, clericus insensatus, frater ejus; post Chislericum, Regem insensatum, regnavit, solo nomine, Hendericus insensatus, consanguineus ejus; post Hendericum, regnavit, solo nomine, Childericus insensatus, frater ejus.* We have heard

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* The following account is given by Eginhard of these Merovingians. *Et opes et potentia regni penes Palatii præfectos, qui majores domus dicebantur, et ad quos summa imperii pertinebat, tenebantur; neque regi aliud relinquebatur, quam ut regio tantum nomine contentus, crine profuso, barbâ summissâ, solio resideret, et speciem dominantis effingeret, legatos, undecunque venientes, audiret, iisque abreuntibus responsa, quæ erat ediculus, vel etiam jussus, ex suâ velut solistate, redderet. Quocunque eundem erat, carpento ibat, quod lusus junctis, bubulco rustico more agente, trahebatur.*

it suggested by some learned persons, that, from the constant conjunction of long hair and folly in these Gallic potentates, mankind have, as usual, inferred the relation of cause and effect to have subsisted between them; and assuming, rather illogically, the converse of the proposition to be true, have rivetted in their minds that association of wigs and wisdom which has so greatly redounded to the glory and profit of doctors and peruke-makers.

Like the corresponding history of England during the Heptarchy, the annals of these princes are ineffably wearisome and uninstruative. Whether the Offas and the Pendas, the Chilperics and the Dagoberts, had a vice more or less, we have as little solicitude to inquire, as about any question which the busy dæmon of controversy can possibly suggest. The Sublime Porte does not trouble itself, said the Reis Effendi to an ambassador, who communicated a victory of his masters, whether the dog beats the hog, or the hog beats the dog. We care as little, whether, in any one given year during an age of anarchy, a greater number was slain in one horde of barbarians or another. These are the ups and downs of savage warfare, which are occasionally varied by the *fluctus decumani*, the grand revolutions, by which the fate of nations has been affected. We make no objection, on the whole, to the conduct of this part of the book. Dr R. could not have been more concise, without reducing the scale to that of an abridgement, and he has never been tediously diffuse. In one instance, perhaps, we could wish him to have looked a little more into the subject, indifferent as we have just professed ourselves as to individual character. We allude to that of Brunehaut, Queen of Austrasia and Burgundy, and rival of the no less notorious Fredegonde, who, in the year 613, was dragged at the tail of a vicious horse, for the amusement of a humane conqueror and his polished camp. Concerning this princess the antiquaries and historians of France have been at issue for some centuries, the greater part maintaining her to have been a monster of guilt, while some espouse her defence with as much zeal as was felt by the three hundred gallant Franks, who swore, that a child, of which Fredegonde had been delivered, was the actual offspring of her husband. Dr R. simply says, that Velly rather vindicates her character. But Velly is by no means her only panegyrist; Pasquier, Cordernoi, and several more, might have been cited on the same side; and the controversy, perhaps, deserved a note of half a page. Yet when we recollect, that some great philosophers have declared, that the dispute about the guilt of our Scottish Mary, connected as it is with so many illustrious characters, heightened by so many associations of sentiment and romantic circumstance, and embellished by such ingenuity and eloquence, has excited no curiosity in their breasts, we are half ashamed

med to avow any solicitude about the merits of this comparatively obscure prince.

As a specimen of Dr R.'s powers of composition, we may refer to his character of Charlemagne. It is drawn, in our judgment, without force or vivacity; and is worthy of censure also in a moral sense, for glozing over the thirst of conquest, and the licentious private life, by which that illustrious usurper of the Roman name was distinguished. Charlemagne owed more to Pepin, than Alexander to Philip, or Charles XII. to his father: not only he inherited a consolidated empire, but found the neighbouring countries half subdued. Like Alexander, too, his genius was attested, not by the permanence, but by the fall of his empire: his sceptre was too massy to be swayed by the puny hands of his children; and he stands by himself, as the sole individual, who, within the period of credible history, has united, by his own victories, three of the principal countries of Europe under his single dominion. There is a fact related by Dr R. of Charlemagne, which is rather startling. 'The King of Persia,' says he, 'who reigned then over great part of Asia, preferred his friendship to that of any other prince or potentate, and presented him with the precious gift of the Holy Land.' Vol. i. p. 166. In another place, (vol. ii. p. 2.), he speaks of 'Aaron King of Persia.' The original of this absurd blunder we have luckily detected (for Dr R. is very deficient in his references) in Eginhard, (Vit. Kar. Mag. c. 16.) '*Cum Aaron Rege Persarum, qui, exceptâ Italiâ, totum pæne tenebat Orientem, talem habuit in amicitia concordiam, ut is gratiam ejus omnium, qui in orbe terrarum erant, regum et principum amicitie præponeret, solumque illum honore et munificentia sibi colendum judicaret. Ac proinde, cum legati ejus, quos cum donariis ad Sacratissimum Domini ac Salvatoris Mundi sepulchrum locumq. resurrectionis miserat, ad eum venissent, et ei Domini sui voluntatem indicassent, non solum quæ petebantur fieri permisit, sed etiam sacrum illum et salutarem locum ut illius potestati ascriberetur, concessit.*' Dr R. has not only confounded the mere site of the Holy Sepulchre with Palestine at large, which would have been a marvellous donation, but has disguised under this strange appellation *Aaron King of Persia*, the illustrious Khalif Haroun Alraschid. There is something peculiarly interesting to our minds in the esteem and courteous intercourse between these great men, who, in the zenith of religious bigotry on either side, unconnected, in the most distant possibility, by ambitious interests, separated by long tracts of sea and land, and surveying each other but in the mirror of reflected glory, still felt that there existed between them the community of transcendent merit, and the joint inheritance of that immortal renown to which no other monarch of their time was worthy to aspire.

We shall rejoice if the extracts which, for a different reason, we have been led to make from Eginhard's life of Charlemagne, should induce any of our readers to the perusal of that work. It is written, with a few exceptions, in latinity more worthy of the first than the ninth century, and with much of that simplicity, grace, and brevity, which we admire in the Agefilaus of Xenophon, and the Lives of Cornelius Nepos.

The ecclesiastical history in the second chapter, including that of Druidism, is somewhat too long. The third chapter is the most essential of the whole first volume. It purports to contain the history of civil government, laws, and revenue, from Clovis to Charlemagne. This is the fruitful field of controversy. Every step we take is over the debateable land. The extent of royal authority,—the hereditary or elective tenure of the crown,—the nature of the irruption under Clovis,—the condition of the former inhabitants under their new masters,—the equality or inequality of ranks,—the exemption from taxes,—the partition of plunder and of lands among the Franks,—the rise of the feudal system,—and the nature of the tenures which preceded it; these are the chief, but by no means the only questions which have occupied the researches of learned and zealous Frenchmen. But they are interesting, at least many of them, to us, almost as much as if we were Frenchmen. Their solution would illustrate most materially the whole history of the middle ages. There is such an affinity among the western nations of Europe, that, whatever is true of one, though it will not admit an analogical inference, will very much assist our investigations with respect to another. Their jurisprudence, particularly, is of the same family features, though the Frank, the Anglo-Saxon, the Lombard, and the Visigoth, have blended the general character with those distinctive peculiarities, which situation, climate, and commixture of races must always produce.

These discussions, though some of them had an earlier origin, have been particularly prosecuted since the beginning of the last century. The Jesuit Pere Daniel led the way, in the preface to his History of France, about the conclusion of Lewis XIV.'s reign. But, though far more learned than Mezerai, he does not seem to have fully anticipated all the constitutional questions which were afterwards raised; and his most eminent innovation in historical criticism, was the rejection of the four monarchs who were supposed to have preceded Clovis in a settlement on the left bank of the Rhine, in the country of Liege and Tongres, for whose existence, or, at least, for whose establishment, he endeavours to show there is no ground of belief. The Count de Bouhinvilliers followed, in the *Memoires Historiques* prefixed to his Statistical Account of France, a splendid edition of which was published

at London in 1727, under the patronage of the royal family, and the principal *Whigs*. For it was considered as written upon principles, which at that time were fashionable in the English court; and inculcated the origination of government from the people, and the circumscription of regal prerogative. The same causes rendered this work unpopular, or at least invidious in France, and the succeeding writers seldom speak of Boulainvilliers without astonishment at his audacity and presumption.

Clovis, according to this author, was but the general of a free army, who elected him as their leader in enterprises, the glory and profit of which was to be shared with themselves. Previously to such election, the Franks were equal and independent. What kings they had, were but civil magistrates, appointed to settle the disputes of individuals, though probably always selected from a particular family. Their leaders in war were elected indiscriminately with respect to birth, from the public confidence in their skill and valour. *Reges ex nobilitate, duces ex virtute fumant*. This distinction was preserved throughout the whole of the first race after Clovis. The civil and military authority were in separate hands,—the King, and the Mayor of the palace. The Frank, conscious of his inherent rights, looked up to the king neither for his liberty, his possessions, nor his right of dominion over the ancient inhabitants. These became subject, not to the king, except in his own share of the conquered territory, but to the proprietors of estates within which they lived. These proprietors, the Frank conquerors at large, knew of no tax or tribute, save personal service against a common foe; and claimed the equal distribution of all the spoils of victory. A precious vase, belonging to the church of Rheims, was taken soon after the battle of Soissons. When the plunder was set out for division, Clovis begged it for himself. You shall have nothing here, exclaimed a soldier, striking the vessel with his battle-axe, but what falls to your share by lot. Clovis dissembled his resentment, and deferred for a better pretext the punishment of this insolence. Nor was the civil power less limited in peace, than the military authority in war. The general assembly in the Champ de Mars retained the legislative and the judicial powers in themselves. No Frank could be tried in any other court. And to complete his security against oppression, the right of defending himself by arms against any power whatsoever, was both recognized and frequently exerted.

Such is the view of civil government under the first race which Boulainvilliers has given; and the same prejudice which has raised up swarms of zealots in England for the monarchical or the democratic nature of our Anglo-Saxon polity, led the subjects of Lewis

XV. to consider the constitution of their barbarian ancestors, not only as interesting in itself, which it undoubtedly is, but as bearing some connexion with the cause of liberty or of loyalty in their own times.

The next great work which appeared in France upon the Salian invasion, was by the Abbé Du Bos, the *Histoire Critique de l'Etablissement de la Monarchie Française dans les Gaules*. In opposition to Boulainvilliers, he contends, that the civil and military functions were united in the kings of the Franks; that the crown was hereditary, excluding females; that the Franks were not exempted from tribute; that the general assemblies of the nation, or parliaments, had no great authority, though the Salic code, he thinks, was enacted by the people, and not by the prince. But his leading opinion, and that which made such an epoch in the annals of French antiquaries, that the President Henault can find no parallel to it but the Cartesian philosophy, is, that Clovis, instead of invading Gaul as a barbarian usurper, entered it peaceably at the request of the Eastern Emperor, from whom he accepted at once the name and the office of Consul, and with the concurrence of the inhabitants. They, according to this author, felt little alteration; they were maintained in their rights and properties, were still governed by the Civil law, preserved the distinctions of senator and patrician, though perfect equality of ranks subsisted among the Franks, filled the most honourable situations in the Merovingian court, and even the mayoralty of the palace, mixed with the Franks by intermarriages, and were not deprived even of a share of their lands, for the accommodation of their courteous protectors. The proofs, by which this paradox is attempted to be supported, it would be impossible, as well as imprudent, to abridge in this place. 'Une erudition sans fin est placée, non pas dans le système, mais à côté du système,' says Montesquieu, very happily; and the assertion is certainly true of many systems, whatever it may be of this. The illustrious author of *l'Esprit des Loix* has entered himself upon this subject; and his four last books, in which, according to Gibbon, but not in our judgment, the philosopher is sometimes lost in the legal antiquarian, contain many beautiful though desultory illustrations, of which it would be ridiculous to suppose that any of our readers are ignorant. The Abbé Mably published his *Observations sur l'Histoire de France*, between 1760 and 1770. In these he has moderated between Boulainvilliers and Du Bos. Like the former, he asserts the original independence of the Franks, and the power of their annual assemblies; while he admits, that this free constitution soon degenerated into a mingled despotism and anarchy; that these assemblies were discontinued soon after the time of Clovis; and that the

the Bishops conspired with the Leudes or Antrustions, who were invested by the King with a personal but not hereditary nobility, to extinguish the democratical part of the constitution. To Du Bos he allows, that the Roman inhabitants were not reduced to servitude, nor even subjected to tribute; while he maintains, that they were placed in a state of great inferiority to the Franks. An answer to some parts of Mably's book was published by M. Moreau, which has never fallen into our hands. In the year 1801, a posthumous work of the President Henault was printed at Paris, the title of which is nearly the same with that of Du Bos. It contains a dissertation upon the antiquity of the French monarchy, of which the object is to refute P. Daniel, by proving a settlement of Clodian or Merovæus on the left bank of the Rhine. But the greater part is dedicated to a full statement and refutation of the systems which Boulainvilliers and Du Bos had proposed. We do not entertain any doubt of the authenticity of this production. It contains several passages, fragments of which have been inserted in the *Abregé Chronologique*, and bears no allusion to any publications posterior to 1738, which appears to be (tom. i. p. 168.) the date when it was written. At the same time, we regret to say, that, although learned and apparently accurate, it is replete with prejudices, and by no means adequate to the expectations which the *Abregé Chronologique* must naturally excite. The sentiment of Henault on the conduct of Clovis is, that he was really a conqueror, and not invited into Gaul; but that, with the prudence of Alexander, he conciliated his new subjects to his dominion, by leaving them in great part their laws and liberties, and gained as much by his policy as his arms. He differs from Boulainvilliers in almost every opinion.

We regret that Dr R. has wholly waived the consideration of many of these controversies, and that what he does say is often either confused or erroneous. On the royal succession we have the following note, p. 255.

‘The nature of royal succession in France has been much disputed. The dissertations published on the subject are extremely numerous, and some of them ingenious and interesting. Hottman, du Kaillan, &c. have represented the crown of the ancient Franks as purely elective. Du Tillet, Fauchet, Jerome Bignon, &c. have affirmed, that it was purely hereditary. The Abbés Vertot and Thuilleries have endeavoured to prove that it was both hereditary and elective; that is, that, even after hereditary succession became customary, the people still claimed the right of election, or of formally nominating the successor. M. Foncecagne aims to shew, that the crown has been successively hereditary; that is, that it descended successively in the royal family, but not always to the eldest son, nor in a direct line from any one to another, according to the priority of age. Dissertations on this subject may be found

found in almost every one of the first ten volumes, and particularly in the 6th and 8th, of the *Memoirs of the Academy of Inscriptions and Belles Lettres*. See also Pere Daniel's *Preface Historique*.

But the sentiments of *Thuilleries* and *Vertot* are utterly opposite to each other. The former contends, that the crown under the first race was formally elective, but that the election fell always upon the nearest heir; and that no negative existed in the people. His opinion therefore resolves itself into that of Du Tillet and the other *Tories*. It is maintained by *Vertot*, on the other hand, that the crown was not merely elective, because none succeeded to it but the family of Merovæus, and because children were often raised to it; not merely hereditary, because in numerous instances the nearest of the royal line was rejected, in favour of one more distant; consequently, that there was a right of election within the family of Merovæus. This opinion apparently does not differ so much from that of Hottman and the other *Whigs*, as *Vertot* himself would wish us to believe. Dr R. has, as the reader will observe, attributed this notion of *Vertot's* to M. de Foncecagne. The real opinion of Foncecagne (*Mem.* tom. 6. & 8.) is, that the crown was strictly hereditary, but that all the sons succeeded equally.

As to the state of the former inhabitants, after the French invasion, Dr R. thinks, that 'the more civilized Gaul, formerly a proprietor, was not dispossessed of what he formerly enjoyed, but reduced under the authority and laws of a Frank. He became the farmer or subordinate proprietor of what was his former independent property. Inferior tacksmen and cottagers scarcely felt the change.' We consider this opinion as improbable, and not consonant to any theory whatever.

Passing over Dr R.'s account of the different classes of men under the Merovingian race, which is shamefully destitute of references, we shall extract his statement of the tenures by which lands were held, comparing p. 245. with p. 289. 'Property,' he says, 'was held among the Franks, by immemorial possession; by the will of the nation expressed or understood, in their annual assembly; by inheritance, by gift, by purchase, or by prescription.'—'Any estate or lands purchased or acquired, not as a gift, either from the assembly, or king, or baron, but by an equivalent, was considered as *proprium*; an independent right, accountable to no superior, and conveyable to any one by deed. We find this kind of property described and conveyed as such, distinctly from allodial and feudal lands, by forms still in preservation.'—'Allodial lands were the public property gained by conquest or confiscation, and allotted to individuals, and tribes or cantons, by the general assembly.'—'Lands divided in this manner were called Salic, as well

well as allodial lands.'—'The manner of succession is not precisely determined; but it is certain, that males only could succeed.'—'Females were declared incapable of inheriting Salic or allodial property, *ne lancea transeat in fenum*'

We submit, but with hesitation, that there is no ground for this distinction between *proprium* and *alodium*, which have been thought quite synonymous. '*Alodium*,' says Du Cange, '*idem esse dicitur quod pradium, i. e. possessio, hereditas. Ugitio et ex eo Gulielmus Brito, in Vocabular. M. S. Pradium dicitur possessio, villa, ager, seu perpetuum alodium; et dicitur alodium, hereditas, quam vendere et donare possum; ita est mea propria.*' Du Cange, in *voc. Alodium*. And again, he defines *Proprietates* by the words *Alodia, Patrimonia*. The 'forms still in preservation,' to which Dr R. refers, are the 47th and 49th among the *Formule incerti Auctoris*, annexed to Marculfus. These are, each of them, in the nature of a testament, by which a father constitutes his daughter joint heir with her brothers, in the property which he inherited from his ancestors, and to which he declares, according to the Salic law, she could not otherwise succeed. But the word *proprium* is never used, nor any such property pointed at, as Dr R. supposes. It seems from hence, that the property thus devised was not only allodial, but Salic. For we rather conceive, that Salic and allodial lands differ, as a part differs from the whole: at least the 62d title of the Salic code is *De Alodis*, and contains several rules of inheritance with respect to allodial property, expressly pointing out the cases in which females may inherit, to wit, after males in the same degree. Then follows the famous clause: *De terra vero Salica in mulierem nulla portio hereditatis transeat, sed hoc virilis sexus acquirit, hoc est, filii in ipsa hereditate succedunt. Sed ubi inter nepotes aut pronepotes post longum tempus de alode terra contentio suscitatur, non per stirpes, sed per capita dividuntur.* Is not this a proof that some lands were allodial which were not Salic? The tenth formulary of the second book of Marculfus is a deed of a grandfather, declaring his deceased daughter's children joint heirs with his sons in all his property, lands, houses, vineyards, &c. with all the particular enumeration of a modern conveyance; *et quodcumque dici potest, quicquid supra dicta genetrix vestra, si mihi superstes fuisset, de alode mea recipere potuerat.* This does not look like an absolute exclusion of females from allodial succession. At the same time we confess, that the next formulary but one in Marculfus, (lib. 2. 12.) seems to favour Dr R.'s opinion, or rather an improvement of Dr R.'s opinion; for it is quite untenable in its present shape, namely, that *propria* and *alodia* differ as *feuda antiqua* and *feuda nova*, or estates taken by descent and purchase in the English law; and that, although both were heritable,

table, and both subject to the power of devise, yet they were regulated by a different law of succession. The title of the sixty-second law of the Salic code above cited, might be thought much in our favour, since it is evident that part of that law relates to property which females might inherit, could we be certain that the title was coeval with the law itself; but this may be questionable. It may be remarked, by the way, that those who rely on that etymon of *alod* from *all*, entire, and *odh*, possession, which is approved by Blackstone, Wright, and Stuart, and which seems confirmed by the corresponding words *udal* and *feod*, will not be disposed to admit Dr R.'s supposition. Eccard, however, derives the word from *alt*, old, and *odh*, possession, *veterem avitamque possessionem indicat*; and, *perhaps*, *alodium* may be every where rendered *inheritance*. On the whole, we leave this point to men of more learning and leisure, justifying the opinion which we first stated by the very high authority of Du Cange.

No authority is given by Dr R. for the assertion, that allodial property was derived from the gift of the people in their annual assembly. We are too conscious of the danger which attends a negative proposition in history, to aver, that no such authority may be found; but we look upon it as contradictory to the only plausible ground on which Du Cange's notion of *alodium* can be opposed, namely, as we intimated above, that it implies lands taken by descent. This theory about the origin of allodial tenures, gives rise to the following account of their decline under the Carolingian dynasty.

'The very independence of allodialists contributed to depress them. Proud of their peculiar rank and antiquity, for they generally traced the tenure of their lands to the gift of some ancient general assembly of the nation, and there were not very many tenures of this kind to boast of, they were disposed rather to hold in contempt beneficiary and feudal tenures, as an inferior kind. The least insinuation or appearance of this spirit naturally excited jealousy, and provoked resentment. As others could exact from them no service, so, neither had they reason to expect from others favour and protection. They were even jealous of any claim being made on them, or of any thing granted as a favour being construed as a right. Distant and reserved, they mingled not easily with the partisans either of one side or another, around them. Scattered as they were over the country, it was almost impossible for them to form, or for any length of time to maintain among themselves an extensive confederacy. Necessity thus obliged them to sacrifice pride to prudence, to become the men or vassals of those who, though their tenure was of a more recent date, or of an inferior sort, were, from the circumstances of the times, and their more extensive territory, able to afford them protection and security.' Vol. II. p. 217.

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There is not an atom of reference for this statement, which we suspect to be a baseless fabric, supported only, like the elephant on the tortoise, by the groundless assumption, that allodial estates were derived from the gift of the nation at large, and in no other way. That allodialists 'held in contempt beneficiary and feudal tenures' we have never read: we know that the feudal proprietors were vastly more powerful in the times of which Dr R. is now treating, and that they gradually absorbed almost all the rest into the vortex of the feudal polity. Benefices, as Dr R. has proved from Marculfus, were in some instances hereditary as early as the seventh century; though they probably did not become such in general before the age of Louis le Debonnaire. But how far these benefices partook of the essential properties of fiefs, we suspect to be extremely doubtful. The word *feudum* is not known to be older than A. D. 1000.

In the second section of this third chapter, we are treated with a compendium of the different codes of law which prevailed in Gaul during the period comprised in the volume. We object to the introduction of the Roman law at the front of these, because it was not predominant in the country after the conquest by Clovis, and because a great part of what Dr R. has inserted is utterly inapplicable to the condition of a distant province. But, at all events, he should have avoided blunders. 'The peaceable possession of moveables unclaimed for one year, and of heritables or immoveables for two years, formed the right of *usucapio*; but in later times the right of prescription was extended to ten, or even twenty years.' This is not quite accurate nor full; the prescription here fixed is only in favour of a *bona fide* purchaser: ten years were made the term of limitation, where the rightful owner was in the country; twenty, where he had been abroad. 'Property was either *lifèrent*, usufruct, or heritable. In the former, the subject could not be deteriorated; but on the death of the possessor, or on the expiration of his lease, it returned substantially to the general or legal proprietor.' This is all confusion: usufruct is neither opposed to heritable property nor to *lifèrent*, but to the naked right, which, by a legal fiction, was supposed to reside in a different person from the usufructuary. The titles referred to in Heineccius, lib. 2. tit. 4. & 5. have nothing to do with *lifèrent*, which seems to be a gloss of Dr R.'s upon *usufruct*. 'An insolvent debtor was sold, or, if any of his creditors insisted upon it, his body was divided among them. *It is thought that the latter punishment, however, was seldom inflicted.*' It is thought that the latter punishment was never enacted; it is known that it was never inflicted. See Heinecc. lib. 3. tit. 30. Dr R.'s own reference.

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‘ The Roman judges were anciently their kings ; then the consuls ; afterwards the prætors, and their assessors, chosen annually by the people.’ It is not true, that the assessors were chosen by the people. They were selected by the Prætor from the class in whom the judiciary power resided. So much for the Roman, now for the Barbarian laws.

‘ If no heir appeared to claim the property of the deceased, it fell to the king, or to the public treasury.’

This purports to be the 65th title of the Salic law : with what accuracy Dr R. has translated it, we leave the reader to judge, when he has compared the original words.

‘ Tit. 65. *De compositione homicidii. Si cujuscunque pater occisus fuerit, medietatem filii in compositione colligunt, et aliam medietatem parentes qui proximiores fuerunt, tam de paternâ quam de maternâ generatione dividunt. Quod si de paternâ vel maternâ parte nullus proximus fuerit, portio ille ad fiscam perveniet, vel cui fiscas concederit.*

‘ One of the capitularies of Charlemagne, after explaining what interest is, declares it to be just, when no more is required than was promised ; another of them declares it to be usury, when more is demanded than was stipulated.’

Thus Dr R., and thus the capitulary, as quoted by him.

Usura est, ubi amplius requisitur quam datur. Verbi gratiâ, si dederis solidum, et amplius requisieris : vel si dederis modium vini, frumenti, et iterum super aliud exegeris.

It is obvious how little this supports the translation above.

‘ He who would not restore what he had borrowed, and he who would not pay his just debts after they were formally demanded, was fined nine solidi ; and if he still refused, fifteen solidi more were to be imposed on him.’

The words in Italics are foisted in by Dr Ranken. The law, Lex. Sal. tit. 55. has nothing of them. The fine, as far as we can judge, seems rather to be imposed for the contempt in neglecting legal process, than for the breach of trust.

In Dr R.’s sketch of the Ripuary law, we have remarked the following inaccuracy.

‘ Sales of large property were also made by writing ; but if the subject was small, it was held legal before six, or if very small, before three witnesses. In the case of purchasing a large property, it was done in the presence of twelve boys, besides the witnesses, to each of whom the purchaser gave a blow and a pinch of the ear, to secure remembrance of the sale.’

We shall confront this with the law itself, tit. 59. and 60.

Si quis alteri aliquid vendiderit, et emptor testamentum venditionis accipere voluerit, in mallo hoc facere debet, et pretium in presenti tradat, et rem accipiat, et testamentum publicè conscribatur. Quod si parva res fuerit, septem testibus firmetur ; si autem magna, duodecim roboretur.

Si quis villam aut vineam aut quamlibet possessionunculam ab alio comparaverit, et testamentum accipere non potuerit: si mediocris res est, cum sex telibus; si parva, cum tribus; quod si magna, cum duodecim ad locum traditionis cum totidem numero pueris accedat: et sic iis presentibus pretium tradat, et possessionem accipiat, et unicuique de parvulis alas donet, et torqueat auriculis, ut ei in postmodum testimonium prebeant.

It must be obvious to every one how much these interesting titles have been misunderstood by Dr Ranken. The first relates to chattel (and perhaps incorporeal) property, which might be delivered any where; and therefore the *mallus*, or great court of the king, was the place appointed as most public and solemn. The second relates to such property as, in the terms of the English law, lies *in livery*, and will pass by mere symbolical delivery of possession upon the spot, without deed,—as lands and houses. The admirable use which the legislators of Gaul made of the doctrine of association, is not unknown to those consummate metaphysicians the churchwardens of parishes in England, who, with more sagacity, it must be confessed, than justice, perpetuate the memorial of parochial boundaries by smiting the scalps, or scourging the posteriors of the junior members of the work-house.

‘The dowry granted to the bride by the father-in-law (*Legis Visigoth. lib. 3. tit. 1. l. 5.*) was not to exceed a tenth part of his fortune.’

Dr Ranken here confounds dowry with dower; or at least uses the former word in an obsolete sense. *Dos* has one meaning in Horace, and another in the code of the Visigoths, who had very different notions of latinity. We apprehend that *dos*, in the classical sense, is rarely used by the law writers of the middle ages.

But to proceed—

‘This dowry,’ says Dr Ranken, ‘was to be entirely at her own disposal; only, if she died intestate, it was to return to the husband and his heirs.’

The law says, *De his omnibus in conjugio mulier assumta, si non reliquerit filios, facere quod voluerit liberam se noverit habere licentiam.*

‘Even *pannels* were protected by laws. To strike or injure a *pannel* unnecessarily or unreasonably, was punished with 100 lashes; or if by a slave, with 200!’

We fear the word *pannel* will convey no sort of idea to some of our worthy friends in the south. *Pannel*, be it known, means, in Scotch law, and Dr Ranken’s history, a prisoner, or person under trial. But this is a verbal criticism. Suppose it should

turn out, that this protecting humanity of the Gothic code is a creature of Dr Ranken's brain, begotten between ignorance and inattention? '*Si quis furem captum aut reum alicui excusserit, si majoris loci persona est, extensus coram judice pro sola presumptione centum flagella suscipiat, et quem excussit representare cogatur.*' Cod. Vis. lib. 7. tit. 2. l. 20. The law goes on to enumerate other cases of the same offence, and inflict other penalties. Now, the meaning of this is clearly—If any one *shall rescue from another, a thief taken in the act*, or one accused of a crime, he shall receive a hundred lashes before the judge, and be compelled to bring back the man whom he rescued. But Dr Ranken has construed '*furem alicui excusserit,*' *shall beat any thief*; whereas no blows have been sustained but by Priscian.

'If a husband dismissed his wife (we are now in the Burgundian code, tit. 34.) without any cause, then his fortune went to her and her children.'

The lady was not even to be dismissed; *Si de his tribus facinoribus* (adultery, witchcraft, and violation of sepulchres; that is, we suppose, supping with goules) *nihil admiseris, nulli virorum liceat de altero crimine uxorem suam dimittere; sed si maluerit, exeat de domo rebus omnibus dimissis, et illa cum filiis suis his, que maritus habuit, potiatur.*

The fourth chapter contains the history of learning, upon which we have no particular observation to make. The fifth that of the arts. Of this, a great part is occupied by accounts of agriculture, architecture, and the like, all extracted from Roman writers, and relating to Italy alone, but little more applicable to France than to Kamtschatka. They are moreover as erroneous as they are impertinent. To say nothing of a translation from the elder Pliny in p. 416, and from the younger in p. 444, which would reap stripes in a schoolboy, what could induce Dr Ranken to enter into a description of the five orders of architecture? What dæmon could put into his head, that 'the Corinthian order is little more than an additional ornament to the chapter of the Ionian column?' or that, in the Ionic, 'volutes were made to depend from the architrave?' If this be so, there has been a marvellous conspiracy in all architects, ancient and modern, to delude the world; since it is certain, that in every building and in every book, the volutes are found to be appendages to the capital, and not the architrave, of the Ionic order. Gothic architecture comes next under review, though, at the death of Charlemagne, when this volume ends, there certainly was not a Gothic edifice throughout all Europe. We shall not be severe upon Dr Ranken's notions about this art, as it seems the privilege of all the world at present to talk about Gothic

Gothic architecture, without understanding what it means. The sixth and seventh chapters, the history of commerce and of language and manners, are very jejune,—probably, in some degree, through the deficiency of materials.

We have been so long detained upon the first volume of Dr Ranken's work, that we can pay scarce any attention to the two last. We shall only make a few strictures on the extracts which he gives from the Capitularies.

One of these enact's, *Ne decem anni, neque viceni, vel triginta annorum prescriptio, religiosis domibus opponatur, sed sola quadraginta annorum cunicula*. This law is founded on the same principles as the English maxim, *nullum tempus occurrit Ecclesiæ*; that is, the probability that men, who have only a life-interest, will rather lose or compromise their rights, than embark in litigation. But Dr Ranken, overlooking the words *religiosis domibus*, has rendered it as a general rule of prescription for all persons. Again,

'A man's widow was entitled to a third share of the fortune which he had himself acquired; but all that he held by inheritance, or other mode of accession, from his friends, descended to his children and other legal heirs.'

The Capitulary says, *De iis rebus, quas is, qui illud beneficium habuit, aliunde adduxit vel comparavit, vel ei ab amicis suis collatum est, has volumus tam ad orphanos defunctorum, quam ad uxores eorum pervenire*.

'Culpable homicide was punished with banishment, besides the war-gild, or fine, paid to the nearest heirs of the deceased. Murder was punished with death.'

The capitularies referred to, are lib. 4. 20. and lib. 6. 39. The first runs in these words: *Quicumque hominem aut de levi causâ, AUT SINE CAUSA INTERFECERIT, Virgildus ejus his, ad quos ille pertinet, componatur. Ipse vero propter talem presumptionem in exilium mittatur, ad quantum tempus nobis placuerit, res tamen suas non amittat*. The second enact's: *Si quis ferro percusserit hominem, et mortuus fuerit, qui percussit, reus erit homicidii, et ipse morietur*. We were struck by the difficulty of reconciling these two laws, and once supposed the second to have been an alteration of the first; but on looking more narrowly into the sixth book of the Capitularies, we found it to be merely an extract from the Levitical law, from the beginning down to the 54th title. Thus, the law, *Si quis ferro, &c.* above cited, is a translation of Numbers, ch. 35. v. 16. We do not apprehend that the Mosaic code was ever of binding force in the dominions of Charlemagne, and consider the first law respecting homicide as the true one.

Dr Ranken is both amused and scandalized at the following law, *Capit. lib. 7. 321*. 'Let no man take more than two wives,

for a third is superfluous.' We are inclined to believe, that even a second would have been thought a needless luxury, during the lifetime of the first; and that the law relates to a succession of helpmates, which, as is well known, the Church at that time discouraged.

The third volume brings the history down to the death of Louis VIII. in 1226. We do not pretend to have looked much at it: the labour of a reviewer must end somewhere; and our readers will probably dispense with any farther account of this performance. If we seem to have been too harsh and rigorous in our scrutiny, it should be remembered, that no duty of an historian is so essential as fidelity, nor any so incumbent upon a critic as to investigate narrowly those positions, which, as they are founded upon very remote and obscure authorities, few readers have the leisure or inclination to examine. Dr Ranken seems to have had some encouragement, as the volumes have hitherto appeared with tolerable regularity. We do not wish to dissuade him from proceeding. That he is, like too many persons in this country, but moderately versed in the Latin tongue, we have had several proofs; but in the succeeding periods, that language will cease to be so essential, and almost every document upon French history will be found in the vernacular idiom. Accuracy is surely in his power, and surely worth the preserving. We shall track him in his path, if he goes on; and while we shall think it our duty to point out any deviation from the true course, we shall always be happy to discover that he is disposed to redeem his credit, and earn that station in the literary world, to which his extensiveness of reading, when accompanied by adequate attention, will certainly entitle him.

ART. XVIII. *A Mineralogical Description of the County of Dumfries.* By Robert Jamieson, Regius Professor of Natural History, and Keeper of the Museum in the University of Edinburgh; Fellow of the Royal and Antiquarian Societies of Edinburgh, of the Linnæan Society of London; Honorary Member of the Royal Irish Academy, of the Mineralogical and Physical Societies of Jena, &c. 8vo. pp. 185. Edinburgh, 1805.

WHEN we took up this volume, we expected to find a mineralogical description of Dumfries-shire constructed on a plan similar to 'The Mineralogy of the Scottish Isles,' and executed with the same accuracy which had procured for that work a certain share of reputation. Our surprise, however, and disappointment

appointment were both considerable, when, instead of the facts and practical observations which the title taught us to expect, we found ourselves plunged all at once into the profundities of a new theory, the grounds of which are not explained; and overwhelmed with a tedious detail of hypothetical reasonings and conjectures. We have no doubt, indeed, that the good people of the county, who expected information of a much humbler description, will find themselves very much edified with *oryctognosie* and *geognosie*; with *transition rocks* and *floetz-trap*; and with the German and French quotations by which the book is adorned. It must also be a great source of consolation for them to learn, that their rivers bear a striking resemblance to the Rhone, the Rhine, the Elbe, and the wide-rolling Danube; and that the configuration of their vallies has a wonderful affinity to that of the vallies of Germany, to the valley of Cachmere, the paradise of the Hindus, and even, according to all probability, to the vallies of the moon.

For our own part, we have already entered our protest against the introduction of these barbarous and dissonant appellations; and can conceive no other motive for the display of so much irrelative erudition, but Mr Jamieson's unbounded admiration for the tenets and speculations of the Wernerian school. In the Mineralogy of the Scottish Isles, he supports the probability of forming a systematic arrangement of minerals by classes, orders, genera, and species; and points out several geological facts that cannot be reconciled to the floetz-trap system of Freyberg. But in his System of Mineralogy, this classical, Linnean mode of arrangement, is totally abandoned; and in the Mineralogy of Dumfries, not a fact is allowed to appear in a form which might disturb the infallible geognostic and oryctognostic opinion of Werner.

In the introduction, the author tells us, 'that it is an opinion too generally credited, that the art of mining is easy and simple, and that little education, and no very great share of practical knowledge is necessary for its successful prosecution.' This opinion, we confess, is new to us, and we suppose it meant as a prelude to Mr Jamieson's list of the qualifications necessary for a 'mine engineer.' These are so rare, and so many, as to remind us of the reply of Rasselas to Imlac: 'Enough! thou hast convinced me that no human being can ever be a poet!'

But after a man has acquired this long detail of preliminary knowledge, we very much doubt of his being qualified 'conscientiously to take charge of a great mine.' All the abstract mineralogy in the world, could not qualify him to judge whether the miners would receive an adequate reward for their labour, in sinking a shaft, or driving a level, at the rate of five pounds, or

twenty pounds, per fathom; yet, an accurate knowledge of this, is the most essential part of a mine-agent's duty. Such knowledge can only be acquired by a person who has himself worked as a miner; and, accordingly, mine-proprietors generally select for their agents, the most intelligent and acute among their workmen. In place of every department of the work depending on the life of one man, to whom a successor, qualified as Mr Jamieson thinks necessary, might be sought in vain, there are separate agents for the subterraneous works, for washing and smelting the ores, engineers for the water and steam engines, and woodmen for the carpentry necessary to support the mines. The introduction concludes with rather an ostentatious display of the great benefits likely to result from the survey, and an enumeration of five important discoveries that have been made.

The first discovery is of 'an extensive tract of *transition rocks*, a class of rocks hitherto unnoticed in Great Britain.' Does the author mean that the rocks in question were not noticed until he pointed them out? This is very far from being the case, for, though they may not have been arranged under the Wernerian system, they had certainly been noticed and described by many. His second, third, and fourth discoveries, are lead-glance, pitchstone, and coal formations; which, however they may differ from those described by Werner, were certainly known before. With respect to glance-coal, his fifth discovery, it is surely far from being new under its vulgar name of *blind-coal*.

In the first chapter, we are presented with a delineation of the mountains, vallies, and medicinal springs in the county, which we doubt not may be sufficiently accurate as far as it goes.

Mr Jamieson's very tedious excursion to the Continent, in order to explain the formation of the rivers and vallies of Dumfries, appears to us to be completely unnecessary, as illustrations infinitely more striking, might easily have been found at home. If he had made use of his eyes while exploring the Highlands and Isles, he might have seen many streams which, partly by washing down earth and mud, so as to raise the bottom, partly by wearing down their outlets, have converted very deep lakes into extensive vallies. We shall only mention a few where the process is not yet fully accomplished. These are, the Teath, the Allan, the Earn, the Spey, the Findhorn, the Nairne, the Gairry, which flows into Loch Oich, and the Beaulieu, which flows into the head of the Moray Frith. Many smaller streams might be mentioned, both on the Mainland and in the Isles. The Spey, in particular, is first met by a barrier of red sandstone, where the bridge is now building at Fochabers, which must have converted

verted a very extensive tract of country behind into a lake. There is evidence, indeed, that the river had wandered very extensively towards the west, before it settled in its present channel. At the village of Rothes, it is met by a much higher barrier of red sandstone, which must have occasioned a stagnation all the way to Kinrara; and the hollows seen on the rising grounds to the west of this village, shew that the river had formerly flowed over the top of this barrier, and had frequently altered its course, before settling in the present channel. Here we see a beautiful illustration of the way in which rivers scoop out vallies, which our author does not explain. The mountain ridge of Kinrara intersects the plain from north to south; and it is evident, that the river had at one time flowed on the north, at another on the south, of this ridge. Terrace rising above terrace, on the north side of the present channel, shew the different elevations at which it had flowed, before the channel was worn to its present depth. A considerable tract behind is still in the condition of a lake, and, in great floods, parts of the country are overflowed to the distance of more than 15 miles. Where this river bursts through the barrier of the Badenoch mountains, it leaves a valley, extending nearly to the base of the Black Mount, and other mountains contiguous to Ben-Nevis, where its sources are situated. Part of this valley is still a lake, and a very extensive tract is still occasionally overflowed.

The materials which have filled up these lakes, have not all been conveyed by the main stream; but by far the greatest part of them by lateral torrents, from the neighbouring hills. These, where they have met the stagnant water, have often formed steep banks, and elevated plains, composed of gravel, which have all the appearance of being artificial. Of this, among many others that might be mentioned, there is a remarkable example at Calder, on the banks of the Teath, in Perthshire. It is called the camp, and is universally esteemed to have been a Roman encampment, though an accurate investigation must convince every person that it has been formed in the way here described, when this extensive valley was a lake, before the Teath had cut through the sandstone rocks towards Lanrick. In all cases, the soil next the torrent which entered these lakes, abounds in gravel and sand; and towards the outlet it is soft mud, which can be conveyed by slow moving water. We forbear entering farther into this subject; but cannot help expressing our surprise, that so many books should be quoted, and the reader conveyed all the way to India and America, to receive illustration of a doctrine, while our author might have referred to so many examples immediately under his eye.

The account of the medicinal springs at Moffat, is chiefly copied from Dr Garnet. Our author remarks (p. 322) with great probability, that some salt springs on the Solway Frith were derived from the sea; and then he goes on to give directions how to discover salt rocks from salt springs, which gives him an opportunity of introducing a theory of Werner. But we cannot help remarking, he would have been more usefully employed in inquiring whether any such springs existed in Dumfriesshire, than in applying Werner's theory to the case.

In p. 34, he adopts an opinion of Werner, that basaltic hills, for the reasons there stated, are very favourable to springs. Now the reverse of this is the truth in Scotland. Our whin and basaltic rocks emit fewer springs than most others. The reason is, that they seldom have wide veins; and all copious perennial springs, in mountainous ranges, are from veins, the natural drains of a hilly district. Grey wacke, silicious schistus, granite, and not seldom red sandstone, are remarkable for copious springs. Nor is columnar basalt, as our author assumes from Werner, always seen to rest on clay in this country; but it often rests on a shattery and confused basis of the same material, or on sandstone, which is commonly white next the columns, though frequently red below.

In Chap. II., our author proceeds to a more minute detail of the mineral structure of the county. As Mr Jamieson uses Werner's geological language, we cannot help wishing for a more copious explanation, than he condescends to furnish, of 'transition rocks,' 'floetz-trap formations,' &c. No term in mineralogy has produced more confusion than the word 'trap.' The late Dr Walker, wishing to ascertain, experimentally, what trap was, corresponded with the most eminent mineralogists in Germany, Denmark, Sweden and Russia, and requested they would forward specimens of trap. They sent him granite, basalt, sandstone, flat stone, ollaris, &c.; and all such stones as were usually applied in their neighbourhood in the construction of stairs. The word *trap* meaning a stair.

Our author, indeed, in a note, p. 110, offers an explanation of the sense in which he uses the word *floetz*; and says it 'is applied to all those formations which are contained between the transition and alluvial rocks. It implies that these formations are characteristically distinguished by their frequent occurrence in beds (*floetz*).' It unfortunately happens, however, that *floetz* does not mean beds. Of trap, he offers no explanation: the two terms coupled together, are sufficiently absurd, meaning a *bedding stair*. In page 39, he observes, that 'nearly the whole of the upper part of this county is composed of transition rocks.'

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It does not, however, present all the species that occur in other parts of the world. Our author only observed 'grey-wacke; grey-wacke slate, flinty slate, alum slate, and transition green-stone.'

In p. 44. an explanation is given of the meaning of *transition rocks*. We are told that 'Werner, by an attentive examination; found that they contained mechanical deposites, petrifications, and, considered as a class, were more simple than the primitive. He also discovered that they were formed during the transition of the earth from its chaotic to its habitable state; hence he denominated them *übergangsgebirge*, transition rocks.' With submission to our author, Werner's discovery is, in the language of common sense, conjecture, to be supported or rejected as we advance in the science of geology.

It would certainly be a very great acquisition to geology, were a mode of classifying rocks adopted, which, in viewing a country, would enable us to refer each to its proper order. The distinction of primitive and secondary rocks, has long been in use, though it can only be admitted with some limitations. Granite is commonly reckoned the oldest rock now in existence, and its formation most probably preceded the existence of animals and vegetables, because no animal nor vegetable remains are found in it. But that other rocks existed before granite, is manifested by no dubious indications, to those who have been accustomed to examine the structure of granite mountains. In place of *primitive*, the word *primary* should therefore be substituted, which only denotes precedence in a relative sense.

Werner, we believe, is the first geologist who has classed rocks under 'primitive,'—'transition,'—'independent coal formation,' and 'floetz-trap formation.'

With regard to his *primitive*, we have already said that no rocks, now existing, are primitive in an absolute and unconditional sense.

If he has found animal and vegetable remains in his *transition rocks*, these rocks must have been formed after the earth became habitable, or capable of sustaining animal and vegetable life: consequently, they could not have been formed during the transition of the earth from a chaotic to a habitable state. Such rocks might be called secondary, in respect to other rocks, where no such remains were found, though they might, in their turn, be regarded as primary, when compared to many others of a later origin.

Whatever foundation Werner's system may have, in the country around Freyberg, it will never apply to Scotland. Among the four transition rocks mentioned as found in Dumfriesshire, or, we

we may venture to add, in any part of Scotland, we challenge Mr Jamieson to produce a single specimen containing petrifications. In the extensive range of flinty slate rock (silicious schistus) of the vallies of Glengonor, Wanloch, Mennock, Clyde, &c. we never could discover any; nor were we more successful in the 'grey-wacke' of Leadhills, nor in the beds of transition greenstone' (compact felspar rock) that are dispersed throughout the upper part of the county. We are also informed by a very observing geologist, that none were ever seen in the fine slate quarry of Glenochar. The late Dr Walker, whose accurate knowledge of mineralogy is well known, and whose long residence in this county afforded him abundant opportunities of observation, long ago pointed out to us these rocks as a class that never contained petrifications, and were, of course, ranked by him as primitive. We can discover no logic in the conclusion, that this class, because more simple than the primitive, were therefore formed after them.

Of grey-wacke slate he observes (p. 47.) that 'it contains petrifications, particularly those varieties that border on grey-wacke.' But in his description of the *grey-wacke*, no petrifications of animal nor vegetable substances are mentioned; and we are therefore left in the dark respecting 'those varieties that border on *grey-wacke*.' It is true, he endeavours to get out of the mine by a note, which states; 'The petrifications found in transition rocks, are of animals and plants of the lower orders, that probably no longer exist on the face of the earth.' But if they be animals and plants, they must be organized as animals and plants now are, and we have already called upon him to produce such petrifications in any of his transition rocks in Dumfries-shire. This awkward apology indeed betrays rather an implicit attachment to a system, than a careful exposition of facts from personal observation. The science of geology will never advance under this plan; and we seriously recommend to Mr Jamieson to throw off these trammels of system in a science where so much still remains for observation.

He concludes this article with a pompous description of the great abundance of useful slate likely to be found among these hills, and refers to his brother, who 'has promised to examine these rocks with this view.' His brother, however, need not take this trouble, because excellent slate is already known, and has been worked to a great extent, for many years, at Glenochar; it is also found at Newton, on the borders of the county, near Elvanfoot; in the barony of Drumlanrig; and in several other places.

He next describes, '3. *flinty slate*;' '4. *common alum slate*.'

Page 50, we come to '5. *transition greenstone*.' On this he observes,

'On the hanging or upper side of the Susanna vein in the valley of Leadhills, I observed a bed of rock, which at first I mistook for porphyry, but which proved, on more attentive examination, to be greenstone. It is almost entirely composed of felspar, which has usually a pale flesh, red, or reddish white colour; in it there is sometimes imbedded grains of greyish coloured quartz, scales of iron black-coloured mica, and crystals of pale flesh-coloured felspar. Sometimes the basis is in a state of disintegration; and then it resembles porcelain clay.'

He might have added, that this rock also contains cubical pyrites; and, in place of occurring in beds from 'three to twelve feet thick,' he would have been more accurate had he said beds from one to thirty feet. We confess no part of the volume gave us more surprise, than the reasonings of Mr Jamieson, to prove that a compact felspar rock, of a pale flesh-colour, and such as Kirwan perhaps would call a granitel, was a variety of greenstone. But it seems a link was wanting in Werner's 'floetz-trap formation suite;' and our author assumes no small degree of merit, at the close of his introduction, for supplying that with transition greenstone. The name *grünstein* or *greenstone*, has been given by Werner to a rock composed of hornblende and felspar; and, according to Mr Jamieson, our whinstone of Salisbury Craigs belongs to this class of rocks. The term is sufficiently improper, as every person knows that a mixed colour of grey and black, and not green, is the most usual colour of this kind of stone in Scotland. In note F, annexed to this article, we are cautioned not to be too micrological in our observations in describing a rock mass; that is, we must reject all the labours of former mineralogists in classifying rocks, from their obvious appearances, their component parts, and chemical qualities, as useless; and confound them all in the sweeping *floetz-trap suite* of Werner.

Let us endeavour to give, in one view, our author's strange and inconclusive reasonings on this subject. In greenstone, as described by Werner and Kirwan, hornblende is a necessary and indispensable ingredient, combined with compact felspar. Mr Jamieson meets with beds of compact felspar rock, in which there is *no hornblende*, and this, 'in hand specimens, we may venture to consider as felspar.' But in the great, that is, the bed taken in mass, we are desired to view it as a greenstone, though it wants the very ingredient in its composition that constitutes greenstone. By such legerdemain, any one stone may be changed into any other, and mineralogy thrown into inextricable confusion. But when a deficient link in a favourite theory is to be supplied, one stone will answer as well as another. To such
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of our readers as have not specimens of the two rocks, we shall only observe, that true greenstone melts to a black glass, and the compact feldspar of Leadhills to a white porcelain. But chemical qualities are overlooked by the followers of Werner.

We shall only offer a few remarks on the description he gives of the lead veins of Wanloch-head and Leadhills, which, though superficial, we presume is accurate as far as it goes. He substitutes the term *lead glance* in place of galena, because he says it is English. *Quære*, Is *lead glance* English? In p. 57. he observes, that 'the lead glance formation of Wanloch-head and Leadhills, is completely different from any enumerated and described by Werner.' This gives him an opportunity of introducing the seventeen lead glance formations which are described by Werner, and a long French quotation from that author on the same subject.

We confess we do not see with what propriety either the formations or the quotation are introduced. The mines of Wanloch-head and Leadhills not only differ from all of the seventeen formations; but they also differ from the New Galloway mine, from the Alston mine in Ayrshire, from the Tyndrum mine in Perthshire, and from the Strontian mine, Argyleshire; and all of these differ, not only from 'the seventeen lead glance formations,' but from each other. Now we ask, what useful conclusion can be deduced from this display of 'lead glance formations?'

In note H, explanatory of this article; our author traverses the Hartz, and other parts of Germany, in order to shew that his transition rocks are very favourable to ores. This may be the case in Germany; but, in Scotland, ores are as frequently found in other rocks as in those to which he has given the name of *transition*. Thus, the copper vein of Aithray, near Stirling, runs in a coarse marly breccia or puddingstone above, red stone marl below this, and red sandstone the lowest of all. The veinstones are ponderous spar, and semitransparent spar of lime. If we be not misinformed, the copper vein of Applecrofs in Rosshire, opposite the island of Raasa, runs in a hard coarse puddingstone, whose cement is ferruginous clay. At the base of the Ord of Caithness, a very large vein of rhomboidal spar of lime, includes a vein of copper ore, and many cubes and blotches of our author's glance lead. This vein runs in red sandstone, the strata of which are almost vertical. At Clyth, belonging to Sir John Sinclair, a vein of ponderous spar, more than a hundred feet broad, intersects the country to a great extent, and, where it happens to be uncovered, shews strong indications of copper ore. This vein intersects bituminated calcareous sandstone, of a greyish blue colour, arranged in regular strata, which, we presume, our author

ther would reckon of floetz-trap formation. On the summit of Skinnethill, Sir John possesses a workable vein of glance lead, running in the same species of rock; and, it is presumeable, its thickness may increase at a greater depth. It is connected with ponderous spar, and with ore of arsenic. At Sandside, a similar vein of glance lead is seen, running partly in a blue bituminated limestone, partly in blue calcareous sandstone. It is connected with ponderous spar, though no arsenic is visible. In various parts of Caithness and the Orkneys, smaller veins, and frequently large masses of glance lead are found in bituminated calcareous sandstone, of a blue, or greyish blue colour. Thus all our author's directions (p. 75.), which seem to limit our search for metallic ores to his transition rocks, appear utterly inapplicable to Scotland; and we are as likely to find them in his *floetz-trap* as in his *transition*.

He also classes the alum-slate found near Moffat, among the transition rocks. It may be so; but in various parts of Scotland, there are large strata of this substance, which answer the description he gives of it (p. 49.) connected with coal: and at Hurler, near Paisley, there is an extensive manufacture of alum, from materials found in a coal-pit. The latter will not surely be reckoned *transition*, unless we are resolved to stretch Werner's suite beyond all bounds.

When our author (p. 79.) enters upon his 'independent coal formation,' we confess he plunges far below our depth. He subjoins a note, which, in place of explaining, renders his meaning more doubtful than it was before. He says, 'this formation is styled independent, because it exists independent of any other; whereas the coal found in the older sandstone, floetz-trap, and alluvial formations, is to be considered as subordinate to, or dependent on them.' Does he mean that this independent coal is self-existent? Or that it was created where it now exists, without deriving its origin from any previously existing matter? Or that it was formed independent of the strata which cover it? If the last be his meaning, it implies a palpable absurdity. The characters he gives from Werner, of the strata accompanying this 'independent coal,' are seldom applicable to the strata connected with any coal, known to us, in this country. Thus, the characters leave us as much in the dark as the explanatory note.

By 'independent coal formation,' however, if it have any meaning, we presume he means coal found under red sandstone; and as the chief object of his survey was to find coal where it was not known before, we shall pay particular attention to the arguments by which he endeavours to establish this point. Our author seems so intent upon his 'independent coal formation,' that
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he skips over the only actual coal formations known in the country. He presents us with no account of the strata in which the working coal is included, the thickness of the seams, their inclination, or bearing. All we can gather from his description, and from the figure annexed, is, that these beds assume the extraordinary form of concave cups; and, without the slightest shadow of proof, they are said to rest upon his 'transition rocks.' In p. 89, he mentions a '*columnar glance coal*,' * 'a little above Crawick-bridge,' which is to be observed passing into the 'graphite, but not so distinctly as near Cumnock in Ayrshire, where there is a graphite mine.' In his elaborate description of this wonderful phenomenon, we see nothing but what is very common in Scotland, where a dike or vein intersects the coal stratum. In such cases the coal is often found, to a considerable extent from the vein, reduced to a powder resembling graphite; and even where it remains solid, it is deprived of its bitumen. When this occurs, the miners say the coal is *foul*, or that it is *diseased*: and from the change of quality in the stratum, they often know they are approaching a dike, long before the coal ceases to be solid. From his description, the unwary reader may be led to conclude that the whole stratum consisted either of graphite, or of *columnar glance coal*. But the fact is, that the stratum is the common splint coal, inclining to the oaking Newcastle coal. Near the dike, the stratum approaches to plumbago. At a greater distance, a few scattered columns appear, without any uniformity, surrounded by a brittle crumbling coal, of the same quality. This coal, when heated to redness, emits neither flame nor smoke, and remains long unconsumed, though it does not possess the characteristic properties of good blind coal. It is, in fact, what colliers call *foul* or *diseased* coal. At the distance of some fathoms, the coal becomes, in the collier's phrase, perfectly clean; that is, a bituminous, bright burning, and caking coal. The level of the coal on the other side of the dike is depressed about twelve fathoms. We have seen instances where the corresponding strata met on each side of a dike, at nearly the same horizontal level; and in such cases, little or no *disease* in the strata could be observed. But where the strata are much elevated or depressed, there is always a considerable extent of disease in the part, which is either thrown greatly up or down.

In p. 101, he characterises all the coal in Dumfries-shire, by the

* Our author formerly used the term *glance lead*, because it was English. In a note, p. 78, he explains the *glance coal* by the German appellation, *coal blende*. Could he not have called it *blind coal*, and then the people of Dumfries-shire would have understood his meaning.

the general name of *slate coal*, though it breaks with equal facility in all directions, and is intermediate between the splint coal of the Lothians and the caking coal of Newcastle. The *cannel coal* of Auchintaggart, near Sanquhar, is the only species known to us, which can be called slate or schistic coal, because it divides into thin plates.

Having made these remarks on the very imperfect account he gives of the actual or existing coal formations, we shall proceed to the consideration of his *independent*, or rather *ideal* coal formations. The only coal fields at present known in the county, are at Sanquhar in Nithsdale, and at Cannoby on the Esk. Our author, however, makes a great part of the county an *independent coal formation*, and is anxious to prove that the *reddish brown freestone*, which abounds in the county, covers coal, or that coal may be found under it. So intent is he upon his *independent coal formations*, that he never stops to inform us of a notorious fact, that no such freestone is known to exist in any of the coal fields that have yet been discovered.

In p. 81, after a 'careful examination,' he decides, without the smallest proof, that the red sandstone of Dumfries is not of the same formation with what he is pleased to call 'the old red sandstone of Cumberland,' and that the former 'belongs to the independent coal formation.' In support of his argument, he has recourse to Mid-Lothian, and points out the following places where red sandstone is asserted by him to exist in coal fields. 1. In Dryden water, near Loanhead. 2. Near the paper-mills on the Esk, continuing to Hathornden and Roslin. 3. At Colington. 4. At Craigmillar. 5. At Salisbury Craigs.

Our author is perpetually embarrassing this question by the authority of Werner, and other eminent German mineralogists. In p. 80. and 81. he represents Werner as shewing some of their opinions to be false, and 'that the independent coal formation does not lie under the *old red sandstone* formation. But from what he states immediately after, it would seem that Werner thinks coal may be found under some newer red sandstone formations. We wish our author had specified the marks by which we might distinguish between these valuable new formations and the unproductive old ones. These Germans may have represented facts as they occurred in their own country; but as this is a question, in the decision of which, authority ought to have no influence, we hope to prove, by a reference to facts, that coal no where exists under red sandstone in this country, whether it be of new or old formation.

We must premise, that it requires an eye accustomed to observe these materials, to distinguish the red or reddish brown sandstone,

stone, which we deem very unfavourable to coal, from other sandstones, which are not unfavourable. We do not esteem a reddish yellow, or yellowish brown unfavourable, but the contrary; though these may be incautiously mistaken for the unfavourable sandstone. One discriminating mark of the latter is, that parts of a bed, or even entire beds, are interspersed with small rounded pebbles, and constitute that species of breccia, or puddingstone, to which our author assigns the name of amygdaloid. Other entire beds are composed of this, or of a coarser breccia. Now, though we would be understood to speak with considerable diffidence, we must state, that, as far as our experience extends, we never knew, or heard of, a single example of amygdaloid or breccia occurring in the strata that covered coal. We must farther remark, that the unfavourable sandstone often alternates with white sandstone, inclining to yellow, of a very fine grain, and well adapted for elegant architecture; but a single bed of genuine red, or reddish brown sandstone, interposed between these strata, appears to us highly unpropitious, if not fatal to coal, as far as that group of strata extends.

Having offered these explanatory observations, let us now attend to our author's proof of the existence of coal under the red sandstone of Dumfries, derived from the red sandstone of Mid-Lothian. From the parish of Borthwick, an irregular belt, or zone, of red sandstone, crosses part of the parish of Cairnton, and the parish of Laswade, between Roslin and the paper-mills. Its progress is nearly from south to north; and its eastern boundary is seen to run pretty regularly, until it intersects part of Craigmillar on the east; it then passes onward until it is lost somewhere near Portobello. Its western boundary runs along from Roslin, until it is intercepted by the eastern base of the Pentland Hills, and is lost, or covered, by the whinstone rocks projected from that base. From Portobello, this sandstone takes an irregular western course. It includes the Calton Hill, the ridge on which the old town of Edinburgh is built; and here the North Loch is the boundary between the red sandstone and the coal metals.

From the southern base of Edinburgh castle, the red sandstone occupies all the space between the north side of the Pentland Hills, and an irregular line drawn from this point, in a direction of west by south, nearly to Mid Calder. In this tract there are some large inroads of the coal metals into the red sandstone, and several projections of the red sandstone into the coal metals: but a line east of the river Calder seems to form the boundary of the coal metals, from a little way above the town, to the western point of the Pentland Hills. The basaltic rocks

rocks of Corstorphine Hill are seen, in some points, to rest upon the coal metals. But, farther towards the west, a range of red sandstone is seen to intersect part of the parishes of Corstorphine and Kirkliston, which terminates near Queensferry westward, and comes down to the sea eastward of the Hawes. Whether this be a detached range, or an arm projected from the former, we shall not pretend to determine; though the latter seems most probable. The latter also projects another arm, westward, from Kirkliston through the county of Linlithgow, to the town of Linlithgow itself, and through part of Stirlingshire.

Our author (p. 167.) asserts that Craigmillar belongs to the coal formation, though it does not exhibit the most distant symptom of coal. Southward from Craigmillar, the red sandstone and the coal metals are frequently seen to meet, and to dip in opposite directions; and though coal is wrought on each side of the red sandstone which forms this zone, no particle of it was ever found in the red sandstone itself. Where the strata stand at so high an angle, and are cut so deeply by the North and South Elks, surely if there had been any coal in the red sandstone in question, it must have been exposed to view. The red sandstone mentioned at Loanhead is part of another range, which occupies the rising grounds for a great way towards the south. Though it has coal in its immediate neighbourhood, no particle of coal was ever found in the red sandstone itself.

In the same page, our author asserts, that 'Salisbury Craigs belong to the coal formation;' of which there is not the most distant symptom, though the strata are exposed to the depth of several hundred feet. The 'slate clay' he mentions in this rock, is commonly of a red colour; and the sandstone is mostly red, except the strata next the whinstone, and a few others.

From Salisbury Craigs and Craigmillar, this sandstone stretches through Canaan towards Collington. It occupies Bruntisfield links, and forms the basis of the ridge on which the old town of Edinburgh is built; as was lately made manifest by digging the foundation for the new bank buildings. At the North Loch, the coal-metals again appear; and the New Town is built on strata from which coal was formerly wrought. All the tract of country betwixt this part and the sea, having Portobello on the east, and an irregular line passing Almond Water, above Cramond Bridge, on the west, is founded on coal-metals.

In p. 166, our author says, that 'immediately behind the manse of Collington, there is a beautiful section of the coal-field.' These strata 'are of a reddish brown colour;' but though they are almost perpendicular, and are cut to a very great depth, did our author, or any other person, ever find coal

in them? The 'greyish black-coloured slate-clay,' does not occur behind the manse of Collington, but farther down, towards the Lanark road, where the coal-metals again appear; and here the sandstone is not red or brown; being either white, or grey, or blue, or yellowish. We may remark, that when dark-coloured clay schistus occurs in red sandstone, which very rarely happens, it commonly writes white, like roof slate. But the dark-coloured schistus in coal-fields, as it owes its colour to carbon and bitumen, commonly draws lines of its own colour, or nearly approaching to it.

In p. 108. 109. we are presented with an argument, which, should all our author has said about the coal formations of Mid-Lothian, fail in producing its effect, he thinks sufficient to force conviction on the most obstinate sceptic. 'In lower Silesia, the coal formation is composed of *thick strata of reddish brown sandstone.*' Strengthened by this argument, with much confidence, he concludes with a truism which no one will dispute, 'that the coal-fields of Mid-Lothian and Dumfries-shire, belong to the independent coal formation.' But as, under the term coal-fields, he evidently includes fields of red sandstone, we shall endeavour to prove, that coal does not occur in such fields, in any part of Scotland that is known to us. What may be the case in Silesia, we shall not pretend to decide; but as this gentleman has confounded the red sandstone of Mid-Lothian, which, though often contiguous, is never found to cover coal, with the other species below which coal is actually found, we cannot help suspecting he may have committed the same mistake with regard to the sandstone of Silesia.

In the county of Lanark, a broad belt of red sandstone runs northward from the parish of Kilbride. It occupies most of the parish of Blantyre, and part of the parishes of Cambuslang and Hamilton. Crossing the Clyde, it runs a long way through the parish of Bothwell, and throws out several arms. Though coal is wrought along the boundary of this sandstone, on each side, no particle of coal was ever found included in it. The district of Cunningham, in Ayrshire, is mostly composed of red sandstone: but, from Saltcoats to Irvine, there is a narrow tract of coast, in which there is vast abundance of coal, and the sandstone is such as usually covers coal. The boundary between these two species of sandstone, is marked with almost mathematical precision; and is usually distinguished by an opposition in the dip or inclination of the strata. In the red sandstone, no vestige of coal ever was observed. We might mention several other places in the counties of Lanark, Renfrew, and Ayr, where the coal-metals and coal come into immediate contact with red sandstone, without the latter containing a single particle

tle of coal. We might also point out similar facts in the counties of Dunbarton, Stirling, Linlithgow, Clackmannan, &c. But we pass over to Fifeshire, where the strata, from the high angle they usually make with the horizon, are generally more exposed to view.

From Kirkaldy, to the west of Inverkeithing, red sandstone generally occupies the coast of this county; and there no coal is found. From Salun, on the north-west, a zone of red sandstone is projected towards the south-east, and for a great way occupies the summit of the county. Inexhaustible beds of coal are working on each side of it; and, after, throwing out several arms or branches, the red sandstone comes down to the sea-beach between Easter and Wester Wemyss. Near Easter Wemyss, a very curious display is exhibited of the junction of the coal metals with the red sandstone, the latter seeming to intersect the former, like a dike or wall. But though coal is working in many places, both on the east and west of this red freestone, not the smallest vestige of this fossil was ever found in the red freestone.

Another range of red sandstone runs down from Kinross-shire, and occupies the valley between the Lommond Hills, and the northern hills of Fife. Near the northern base of the Lommond Hills, which are founded on coal-metals and coal, the white, grey, and yellow sandstone, are seen to meet the red, and their line of junction is distinctly marked. The red sandstone continues along the vale of Eden, by Cupar, to the sea; and though coal abounds along its southern margin, no coal was ever seen in the red sandstone itself. The sandstone of the counties north of the Frith of Tay, is mostly red; and in these counties there is no coal. In parts of Banff, Moray, and Nairne, white, grey, and yellow sandstone are seen, including beds of black bituminated clay, and affording indications of coal. In Sutherland, on the north side of the Moray Frith, where coal is found, the sandstone is white, grey, yellow, or blue, though red sandstone appears in other places, and exhibits no symptom of coal. Very thick beds of our author's alum-slate, rest upon the Sutherland coal, and seem well adapted for the manufacture of alum. Our author may perhaps call these 'transition rocks,' though they are evidently of the same formation with the coal.

From these, and many other facts that might be adduced, it appears evident, that red sandstone is, no where in Scotland, what our author calls a *coal formation*; but that it is very unpropitious, if not utterly fatal to coal. We suspect some mistake has been committed in describing the 'reddish brown coloured sandstone' at Repentance Hill and Linbridge Ford (p. 96. 97.),

under which, thin seams of pitch coal were found. The yellow sandstone often assumes a reddish colour, from exposure to the air; and without an attentive examination, it may easily be confounded with the reddish brown sandstone, which is unfavourable to coal. If the gentlemen of Dumfries-shire are determined to sink or bore for coal in strata of this description, we strongly suspect, to use the phrase of that famous old miner, Dean of Guild Wightman, 'they may tickle the soles of the Antipodes' before they find 'thick and very extensive beds of coal.'

Hardly any new coal-fields have been discovered in Scotland since the Union. Most of our coal has been discovered by streams of water intersecting the strata; or, as the strata *basset* or *crop out* to the surface, by exploring their outcrops. The only cases where this mode will not answer, are, where the strata are very flat, or where they draw to a thin edge towards their outcrops.

In note S (p. 169.), the occurrence of greenstone in the coal formation of Mid-Lothian, is announced with all the pomp of a new and interesting discovery. But in the account of the coal at Newcastle, drawn up by the Philosophical Society of that place, accompanied with coloured sections of the strata, this stone is accurately described, as forming beds in the coal-fields. The same stone is found in many of the coal-fields of Scotland, and is noticed by Williams; though neither the people here, nor at Newcastle, called it greenstone; but contented themselves with the more vulgar appellation of *whinstone bands*.

In p. 102. he alleges that 'the Edinburgh coal-field rests upon transition rocks.' This may be true, though no proof of it is offered. The late Mr Williams computed the strata from the Brunston coal near the sea, up to Carlisle, to be in depth above a mile of *coal-metals*; and it is presumable they occupy a much greater depth.

In p. 118. we were very much surprised to find gravel classed among 'alluvial rocks.' We always understood a rock to be, either homogeneous, or composed of parts conglomerated or united together by cement. But it seems we were wrong, and Mr Jamieson has found a class of rocks which 'differs from the other classes of rocks, in the want of connexion among its depositions, the looseness of the texture of the rocks of which it is composed, and the nearly total want of chemical precipitates. The number of its formations are also fewer.'

In p. 119. we are informed, that gold is found in the alluvial land, and 'was formerly washed for in the neighbourhood of Leadhills.' Our author thinks the gold is derived from his transition

transition rocks, and chiefly from quartz veins in these rocks. We are informed in a note, that 'in the reign of James V. three hundred men are said to have been employed for several summers, in washing for gold, and to have collected to the amount of 100,000*l.* Sterling.' We have been informed (though we cannot vouch for the accuracy of our information) that the average produce of each labourer varied from 3*d.* to 4*d.* a day, which was a considerable object when wages were only 2*d.* But after wages rose to 4*d.*, the undertaking, as a subject of speculation, was abandoned, being no longer profitable; though it still continued to be occasionally prosecuted by some old men, who were fit for nothing else, even after wages exceeded 4*d.*

Upon the whole, it is perfectly apparent, that in place of a mineralogical account of Dumfries-shire, Mr Jamieson has only been solicitous to find a vehicle for his newly acquired theory from the school of Freyberg. A less devoted disciple, indeed, would have measured the theory by the facts; but in the volume before us, the facts are made to suit the theory; and in what manner this reconciliation has been effected, it has been the object of this review to point out. Discovery there is none; for every thing stated in point of fact was known before. Nor is it likely that the good people, for whose information the work was intended, will recognize their own minerals, when described in such unintelligible terms, and adumbrated by the veil of an incomprehensible theory. The work never deviates into practical utility, nor do we recollect a single remark, from which the slightest good consequence can result; though there are many of a contrary tendency. The author indeed seems always to labour, and not without success, to render himself unintelligible; probably imagining, that the more he plunges out of the reach of ordinary capacities, the more profound he will be esteemed. Most of the facts in his book are derived from information, and not from his own observation; and he might certainly have drawn up such a work in Germany, without taking the trouble of returning home, or looking at the county of Dumfries.

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* * The Reviewer of Mr Johnes's Translation of Froissart, takes this opportunity to acknowledge a very polite intimation, that Mr Johnes held himself excused from prefixing the life of Froissart to his History, because he had already translated and published, in a separate work and different form, the essence of Monsieur de St Palaye's Essays on that subject. The Reviewer was certainly unacquainted with this circumstance, when he passed a censure upon the omission; but, had he known it, he would equally have suggested the propriety of republishing these sketches of Froissart's life as an introduction to his Chronicle, or, what would be much preferable, the execution of an entirely new life, from the Essays of Monsieur de St Palaye, and such other materials as could be collected. Should this plan be yet executed, the poetry of Froissart should be carefully examined.

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THE
EDINBURGH REVIEW,

JULY 1805.

N^o XII.

ART. I. *The Topography of Troy, and its vicinity; Illustrated and Explained, by Drawings and Descriptions. Dedicated, by permission, to her Grace the Duchess of Devonshire.* By W. Gell, Esquire, of Jesus College, M. A. F. A. S., and late Fellow of Emanuel College, Cambridge. Printed by C. Whittingham, Dean Street, for T. N. Longman and O. Rees, Paternoster Row. 1804.

IN looking for some criterion of taste, there is none which appears to be more certain than long established opinion. The tribute of general admiration, which has been paid to the genius of Homer, during a period of 3000 years, assures us more positively than any thing else can do, of the undoubted excellence of the father of poetry. There can, indeed, be no stronger proof of his merit, than that, at so great a distance of time, we should still be delighted with descriptions of countries which few of us are ever likely to see; of manners which none of us would desire to imitate; and of wats in which we have no other interest than that which is created by the powerful genius of the poet. Yet, who is so illiterate, as not to be acquainted, by the aid of translation at least, with the *Iliad* and *Odyssey*? Who is so devoid of feeling, as not sometimes to have caught a partial glow from the fire of Homer? Who has not been rapt into the midst of the scenes which he describes—has not sided with some Grecian or some Trojan leader—has not fought under the walls of Ilium—has not either thirsted with Achilles to avenge the death of Patroclus, or wept with the aged Priam for the fate of Hector?

Among the many merits of Homer, his fidelity as an historian continues to be celebrated by many of his admirers. A few dissentient voices have indeed been heard in the crowd; but these

were quickly drowned in the general applause; and the incredulity of Anaxagoras seems to have obtained nearly as little attention as the malevolence of Zoilus. Neither has the accuracy of Homer's topography been less a subject of panegyric. It is true, that until a very late period, considerable doubts had been entertained concerning the precise situation of the ancient Troy; and while every one spoke of the Troad, it was left chiefly to the imagination to choose the spot where Ilium stood, and to pick out the Simois and the Scamander, from among the torrents which pour down from the steep of Ida.

The conjectures of the ancients, at least, do not seem to have been remarkably prosperous, or consistent. Alexander himself, with all his enthusiasm and command of information, was unquestionably deceived; and Antigonus continued the building of a city on a spot which scarcely agrees, in any one particular, with the description of the Grecian bard. Ptolemy and Strabo were not more successful; and, what is still more extraordinary, Demetrius of Scepsis, a native of the country, and who had made Homer his peculiar study, was equally unable to ascertain a point that has been considered as demonstrable by modern travellers. Wood was the first who affected to speak with decision upon the subject: but he was soon destined to be outdone, both in zeal and ingenuity.

In the year 1791, Mr Chevalier, who had lately returned from the Levant, read before the Royal Society of Edinburgh, a *Description of the Plain of Troy*; and in this memoir, the fortunate traveller announced the complete success of his inquiries. Previously to his arrival on this celebrated plain, his ardent imagination had anticipated his triumph. It will not be difficult, said he to himself, to find the two promontories which bounded the camp of the Greeks, to discover the valley of Thymbra, and to distinguish the impetuous course of the rapid Simois, and the limpid stream of the divine Scamander. Perhaps, added he, I shall still be able to find the seat of ancient Pergamus. This pleasing vision, we are assured by Mr Chevalier, was realized. He had, indeed, the advantage of being the interpreter of his own dream. He marked the position, where he yet thought it strange that the Greeks should have fixed their camp; he showed where his Simois ought to have joined his Scamander; he found this last river, which was once deep, wide, flowing, and navigable, diminished to a little brook; and its waters turned aside into a ditch; he discovered the sources of the same stream, but not among the summits of Ida, where Homer had placed them (Il. ii.); he pointed out the graves of heroes in a country, where even their very names had been forgotten for a long lapse of ages. In spite of the distinct

distinct articulation of the natives, he changed *Udjec-tape* into the tomb of the old *Ælyetes*; he saw a mound in extent equal to *Udjec-tape*, that is, about 400 paces in circumference, and he called it the *thresmas*, on which the Trojan army, amounting to fifty thousand men, were encamped; and he determined the site of ancient Troy, (which Homer expressly declared was in a plain *), to be on the spot where the modern village of Bournabachi now stands upon a hill, at the distance of ten miles from the shore.

In the year 1795, the learned Bryant wrote his observations on Mr Chevalier's treatise, and some time afterwards gave to the world his dissertation on the war of Troy. In these publications, the author not only endeavoured to discredit the work of Chevalier, but denied the existence of the Trojan war. This bold language alarmed the timid criticism of modern times. Mr Morritt, who had visited the Troad, undertook, rather unnecessarily, to vindicate Homer; and the reviewers fulminated against the literary infidel, who defended his opinions, at the age of eighty, with all the fire and spirit and alacrity of youth. It is not difficult, indeed, to guess what would have been the fate of Mr Morritt, if a reverend critic had not come, like one of the gods of the *Iliad*, all enveloped in a cloud—*voûlé le monde*—and rescued his rash friend from his veteran adversary.

It appeared to us to be necessary to give this sketch of a controversy which was so warmly maintained upon both sides, before we entered into an immediate review of the present article. We wish, however, chiefly to direct the attention of our readers to that part of the dispute which relates to the topography of the plain and city of Troy. And, as one of our associates has recently returned to us after an extensive tour on the shores of the *Ægean* sea, in the course of which, he minutely surveyed the whole of the scenery in question; we flatter ourselves, that we may pretend, without much presumption, to be competent judges of that portion of the cause.

Mr Gell informs us, that the examination of the Troad, as it is connected with the *Iliad*, was the principal object of his voyage. Our readers will judge, in some degree, from the following extract, how well he was qualified for the task.

* The controversy on the subject of Troy, which had long employed the ingenuity and abilities of some of the most learned men in Europe, imparted new charms and increasing interest to the contemplation of scenes already made sufficiently engaging by the writings of the

R 2

poet

poet and historian. To assert that there existed on my part no disposition to credit the veracity of Homer, both as an historian and topographer, would be useless; yet I can say with truth, that prejudice has never induced me to deviate from the strictest regard to fidelity, either in delineating or describing. I had been accustomed, during a long voyage in the Levant, to sketch every scene, which was remarkable for singularity of feature, or as the theatre of events recorded in history; and I was prepared with copious notes, from every work, ancient and modern, which tended to illustrate the history or topography of the country, while I examined every interesting spot with a delight increasing as the truth and consistency of the *Iliad* became more and more apparent.'

We cannot but admire the zeal of Mr Gell, and the extraordinary activity, both of his pencil and his pen. While *he* sketched every remarkable scene in the Levant, and while *he* prepared copious notes from every work which tended to illustrate the history and topography of the country, his fellow-traveller, we trust, 'with such delay well pleased,' expected a work not less valuable than that, with which Mr Gell has favoured the public. It does not, however, appear quite satisfactory to us to be told, while an author openly avows a disposition to favour one side in a dispute rather than another, that yet his prejudice has never induced him to deviate from a strict regard to fidelity. People in general advance their claims to impartiality as judges, precisely, because they pretend to have no prejudices at all; and it is rather new for an author to ask credit for his fidelity, in the same sentence in which he has confessed the existence of his prejudice.

The topography of the Troad is certainly extremely interesting to every classical scholar. Our limits will not permit us to enter into very minute details. We shall, however, make some observations on the position of the Grecian camp, on the Simois and the Scamander, and on the site of Troy, as these have been represented by the three travellers, Mr Chevalier, Mr Morritt, and Mr Gell; and we shall afterwards proceed to the consideration of some subjects, not less important to the dispute in question.

I. In the outset of this inquiry, indeed, we cannot help being struck with the hopelessness of any investigation founded on the present appearances of the ground adjacent to the coast, when we remember that the poet himself has informed us of the vast revolution which it underwent, shortly after the termination of the war. If Apollo turned the streams of seven rivers across the plain, to sweep away the fols and rampart of the Greeks, and Neptune heaved up the shore with his trident, and smoothed over the ruins with sand; it is rather unreasonable to expect that,

at the distance of 3000 years, we should be able to fix with precision, upon the site and dimensions of this famous encampment.* It is worth while, however, to consider what our travellers have been able to ascertain.

It

* If it should be objected to us here, that the lines alluded to in the beginning of the XIIth Book are spurious, we have some right to presume, that the objection will not be made by the travellers. It appears pretty evident, indeed, that they either did not believe the passage to be doubtful, or that they thought they could not help their argument by noticing the fabrication. In fact, if this be an interpolation, it must have been made in order to account for the total disappearance of all remains of the foss and rampart. Does not this furnish us with another proof of the early scepticism which prevailed concerning the scene of action of the Iliad? Since a doubt was to be satisfied, a doubt must have existed. Why were these lines inserted? Apparently, because those, who had visited the shores of the Hellespont, had sought in vain for those vestiges, which might have indicated to them the position of the Grecian camp. The admirers of Homer, knowing no other method of getting rid of the difficulty, substituted a fiction for a fact; and brought down the gods from Olympus, and the rivers from Ida, to destroy those ramparts, of which no traces afterwards remained. The readers of poetry were probably satisfied with the contrivance. With others, however, who would contend for the topographical exactness of Homer, the expedient may not be equally successful. We, who have been accustomed to trace the encampments of the Romans after the revolution of seventeen centuries, can scarcely be surprised, that it was found necessary to invent a fiction, and to interpolate the Iliad, in order to obviate the objections of those, who, after the age of Homer, vainly expected to find the remains of the entrenchments, which, during a war of ten years, might be supposed to have been formed with no inconsiderable care and labour, by the vast army of the Greeks. A new difficulty, therefore, appears to arise from the suspicion of the authenticity of the lines in question; since, if it be verified, we can have no doubt but that the scepticism of the Greeks concerning Homer's topography must have commenced at a very early period; and that his admirers were obliged to employ his own machinery, to obliterate all vestiges of the works which he himself had forgotten to destroy. We mean not to blame the immortal bard for this omission, nor yet the interpolator who supplied the deficiency. The fault seems rather to lye with those who looked for realities in a world created by the most brilliant and inventive imagination that ever existed; and we applaud the admirers of Homer, who, when they were idly questioned about a fact, answered it by the insertion into the Iliad of an ingenious but manifest fiction.

It will be, perhaps, likewise objected to us, that if these lines be

It appears from Homer, that the camp of the Greeks was upon the shore between two promontories. The names of these have not been mentioned by the poet; but conjecture has pointed them out as those, which have since been denominated, the Sygæan and Rhætean. Mr Gell assures us, that no promontories exist as boundaries of any extensive plain on the Hellespont, except these; and that, consequently, the camp was, here, extended over a part of the flat ground. As Mr Bryant had contended, from the authority of the poet himself, that the Hellespont of Homer was not confined to the Canal of Abydos, Mr Gell ought not to have made this positive declaration, without advancing a single argument to support it. He ought to have shown, that the epithets of *broad* and *boundless*, were applicable to the Straits of the Dardanelles. We can scarcely suppose that he was satisfied with the defence which was set up by Mr Morritt, who has translated ἀπυρρον, *impervious, difficult of passage, and little navigated*, all in the same breath. A sea, that was impervious, would not have been difficult of passage, nor little navigated; but one that could neither have been passed nor navigated at all. If ἀπυρρον be compounded, as Mr Morritt pretends, of a privative, and πύρω, *transeo*, it certainly signifies *unpassable*; and yet, this appears to be a strange epithet for Achilles to give to the Hellespont, when he was conversing with Priam.* We have been accustomed to derive this word, either from a privative and πύρω, *conatus, inceptum*, when it signifies *inexpertus*, which cannot be its meaning here; or from a privative, and πύρος, or πύρεα, *terminus*, when it signifies *infinite, innumerabilis, immensus*. Homer has upon several occasions employed this epithet in one or other of these meanings.

— ἐπὶ δὲ τοῖς ὄρεσιν ἀπυρρον. (Il. L. xxiv.)

— ὅππῃ δὲ τοῖς καὶ ἀπυρρον. (Odyss. L. vii.)

Ἀπυρρον μὲν τοῖς τοῖς ἀπυρρον ἀπὸ τοῦ ὄρους. (Odyss. L. viii.)

Mr Morritt has quoted a passage from Sophocles, to prove that

spurious, we have not Homer's authority for contending, that the Scamander had its source among the mountains of Ida. True; we shall not have Homer's, but we have the interpolator's; and this, joined with Strabo's, seems really to us to outweigh either Mr Chevalier's, or Mr Morritt's, or Mr Gell's.

As, however, the doubt concerning the authenticity of the lines in question has not hitherto been proved to us to be well founded, and as the travellers have not noticed it, we do not feel ourselves at liberty to take all the advantages from it, which we have shown it affords to our argument. We shall, therefore, proceed to reason the case, as if the passage were unquestionably genuine.

* Il. α.

that this poet, when he applies *αἰνυγὰν* to Mount Cithæron, intended it to signify inaccessible. We by no means agree with him. Sophocles no more meant inaccessible by it, when he applied it to the mountain, than Homer did, when he applied it to the sea. They both intended to express the vastness of the objects, of which they spoke. In our own language, we may say that the mountains are immense, and that the sea is boundless, while the eye cannot discern their limits; but who would think of calling the English Channel impervious, or the Alps themselves unpassable? Homer, therefore, when he spoke of the boundless Hellepont, probably understood the *Ægean* sea.

Mr Wood attempted to account for the distance of *his* Troy from the shore, by supposing a great accretion of land, and for this he was severely censured by Mr Chevalier. It was, however, soon discovered, that this was a most unlucky criticism of Mr Chevalier's, since it shows, that *his* Troy must have been at least nine or ten miles from the sea; and it is impossible to believe, (if we attend to the events of the day when Patrochus was slain (that the distance could have been so great between Homer's Hellepont and *his* Troy. Mr Morritt, and Mr Gell, have added a very considerable portion to the land since the Trojan war; we mean upon their maps; because we think, with Mr Chevalier, that this could not have happened in fact. 'It is even easy to prove,' says the last mentioned traveller, 'that no considerable increase can exist there, because the impetuous currents of the Hellepont constantly prevent this, by sweeping the sands away into the *Ægean* sea, as fast as the river accumulates them at its mouth.' If, then, Mr Chevalier's Troy was the Troy of Homer, the Greek and Trojan armies must have fought over a space of near forty miles in one day; for the Greeks twice pursued the Trojans from the camp * to the walls, and were twice driven back again to their ships.

Mr Chevalier measured the distance between the Rhætæan and Sygæan promontories, and found it to be 3000 toises. We shall not enter here into any discussion on the different calculations which have been made on this subject, or on the very different accounts which have been given of the situation of these promontories. Mr Bryant, however, has put a mischievous question to the travellers, of which we are bound to take notice. How, he asks, could Agamemnon make himself be heard at the two extremities of the camp, as Homer says he did, while he spoke from the centre? This embarrassing question becomes very

R 4

perplexing

* At the beginning of the day, the Greeks were at a small distance from the entrenchment.

perplexing indeed, if it be true, that the low land has gained two or three miles upon the sea since the Trojan war; because, as the promontories probably remain where they did, the camp must have been formed like a crescent, and the distance must have been great in proportion between the ship of Ulysses, and the tents of Ajax and Achilles.

It appears from Homer, that the Greeks were encamped between two promontories, and that their ships were drawn up upon the shore. The space, though considerable, was not of sufficient extent to receive all the ships in one line, and accordingly they were ranged in several rows, rising one above another like the steps of a ladder.

Πολλὰν γὰρ ῥ' ἀπάνευθε μάχης ἐβύαλο νῆες
Θῖν' ἐφ' ἁλὸς πολυῆς· τὰς γὰρ πρῶτας πιδίονδε
Ἔβρουσαν, αὐτὰρ τεῖχος ἐπὶ πρύμνησιν ἵδμεναι.
Οὐδὲ γὰρ οὐδ' εὐρύς περ ἰὼν ἰδυήσατο πάσας
Αἰγυιάδης νῆας χαδάων· εἴνεοντο δὲ λαοί.
Τῷ ῥὰ προκεδόντας ἔβουσαν, καὶ πλῆσαν ἀπάσης
Ἥϊονος τόμα μακρὸν, ὅσον συνέγραπτον ἄγραν. IL. Z.

The ships of the Greeks amounted to nearly 1200 in number. They were of such dimensions, as to be drawn up upon the shore. Now, it does seem rather difficult to believe, that there not only was not sufficient room to place these ships in a line, but that the people were crowded, and that all this happened upon a flat beach, which extends for nearly four miles between the Sigæan and Rhætean promontories. If Homer had named the promontories of which he speaks, and had called them the Sigæan and Rhætean, his vindication would, indeed, have been difficult; but since he has mentioned neither of them, it is rather unjust to accuse him of having had them in view, when he said, that 1186 barks, though arranged in different rows, were crowded in lying between them.

In the maps of Chevalier and Morritt, the river, which they call the Simois, is represented as now joining the sea about the middle of the low ground, though rather nearer to the pretended station of Ajax, than to that of Achilles. The mouth of the Scamander must therefore have also been formerly here. Now, the Scamander was a broad, deep, and navigable river. Is it not extraordinary, then, that the Greeks should have placed their camp, where one half of it must have been separated from the other by a navigable river? Had it been the pseudo-Simois only, the objection would have been distressing; for this also is, for several months of the year, a considerable stream, which could not have been easily forded: but, that the Greeks should have placed their tents on each side of the navigable Scamander, where

where one division of the army frequently could not have assisted the other, is altogether improbable. Besides, how has it happened, that Homer has not said a word of any stream flowing through the middle of the Grecian camp? How came this exact topographer to fail us here? Or, rather, let us ask, upon what authority the travellers have placed the tents of the Greeks on the banks of their pseudo-Simois?

As we have never met with any answer to the observations of Mr Bryant, concerning the *Stoma-limne* of Strabo, we shall refer our readers to that gentleman's works; not, however, without subscribing to Mr Bryant's remark, that 'a camp, with an unpassable morass in the middle of it, was never thought of before.'

Another difficulty has occurred to us, in looking at the maps of Chevalier and Morritt. How did the Greeks, who were stationed near the Rhætean promontory, avoid passing the Simois in their way to Troy? Homer speaks of the fords of the Xanthus, and of no others. Was it in order to elude this difficulty, that Mr Morritt has confined the *flutio Achivorum*, in his map, between the Sigæan promontory and the place of the pretended junction of the rivers? It is, however, evident from Homer, that the Greek encampment extended completely over the space between the two unnamed promontories: We have seen, in the passage last quoted from him, that there was hardly room enough between them to contain the shipping and the army.

As we had been particularly struck with this objection, while we surveyed the maps of Chevalier and Morritt, we turned with some curiosity to that of Mr Gell. In it, we found the mouth of the river brought much nearer to the Sigæan promontory, than in the other two; and as the difficulty was thus greatly increased, we became more confident than ever, that the encampment of the Greeks could not have been between the Sigæan and Rhætean promontories. We were anxious, however, to know how Mr Gell would reconcile this conjecture of his friends with their topography and his own. We soon discovered that this ingenious gentleman had found no difficulty at all, where we had expected him to find so much. He was quite aware of the objection, which, nevertheless, only cost him another conjecture to remove. He proposes, that the river which now falls into the sea near Koum-Kale, should have formerly joined it a little to the eastward of Koum-Kevi; making the present mouth of the river not quite three miles distant from the ancient. This change he accounts for, by observing, that the waters of the Xanthus are withdrawn. 'The Scamander,' says he, 'before its diversion, would probably, by its never failing stream, have caused the bed of the united rivers to incline towards

wards the tumulus of Ajax, as much as the Simois, when unresisted by the waters of the Scamander, has in later times inclined to the station of Achilles.' Did Mr Gell forget at this moment, that *his* Scamander is a little rivulet; and that *his* Simois is for several months in the year a mighty torrent, 100 yards in breadth? Did he forget, that the ditch which carries away the waters of the pseudo-Xanthus, was dug by the orders of a Turkish governor, and that, therefore, the pseudo-Simois must have changed its course in a much shorter time than our traveller seems to suppose? But we feel that we ought not to press this last question too hardly upon Mr Gell; because, upon comparing his map with the maps of his friends, which, he tells us, appear to be very correct, the mouth of the pseudo-Simois has got nearly a mile further to the westward, since Mr Morritt has been upon the spot.

II. When Mr Chevalier first gave the name of Scamander to the little rivulet which takes its rise from some fountains in the plain beneath the hill of Bournabachi, it was objected, especially by Mr Bryant, that this could not be the deep, wide-flowing river, which came from the summits of Ida, and which sprang from Jove. The description, indeed, which Homer has given of the Scamander, seems totally inapplicable to a brook of five yards in breadth. Mr Morritt thought that there was nothing in this, because the epithets above mentioned were only given to the Scamander after its junction with the Simois. He asserts, that the battle of the *xxist* book was fought below the confluence. We confess, we were surprised to find this admitted by Mr Bryant; nor were we less so to find it almost taken for granted by a man of the acknowledged erudition of Mr P. Knight. If Mr Morritt's own map be correct, the battle, we think, must have been above the junction of the rivers: *First*, because the rampart of the Greeks came quite up to the point of confluence, and the battle did not take place *in* the camp: *secondly*, because the confluence of the rivers was several miles from Troy; whereas it appears from Homer, that the combat was near the city. Mr Morritt, however, is of opinion, that it would have been useless for the Scamander to have called for the aid of the Simois, above their junction. But when the rivers ceased to be distinct, and when their waters were united, it seems very extraordinary that the one should call on the other for assistance. The united streams made one individual; and the individuality of each was lost in that of both; and the Simois and the Scamander became the same, though the latter gave its name to the combined waters. It is evident from Homer, that the object of the River God was to prevent Achilles from approaching the city;

city; and, indeed, to drown him, for having polluted its waves with the blood of the Trojans whom he had slain. Now, it seems that, in this last endeavour, the hero was more than a match for the god; and the Xanthus, therefore, strove to force him down towards the confluence; and, in doing this, while the streams were yet distinct, called on the Simois to roll down a great torrent, that, when Achilles got below the confluence, they might then overwhelm him between them. This appears to us to have been the meaning of Homer; and our argument is much strengthened by the description which the poet gives of the Xanthus, both during the contest and afterwards. The land below the junction is sandy, flat, and marshy, producing nothing but reeds and rushes. Now, how is this to be reconciled with Homer's description? for it is evident from him, that Achilles, by opening the flood-gates and sluices, turned the course of the stream, and conducted it among the gardens, through which there were probably canals cut, for the purpose of watering them? * Again, when Vulcan turned the shining flame upon the river, we have the following lines:

Καίοισι πηλείαι τε, καὶ ἰτιάι, ἠδὲ μυρτιάι,
 Καίειο δὲ λώϊος Ἰ' ἠδὲ Θρῆον, ἠδὲ κυπύρον,
 Τα περὶ καλὰ ῥέεθρα ἄλλης πόταμοιο πεφυκται. Π. φ.

Now, who ever heard of gardens, and a profusion of trees, shrubs, and plants, among such barren sands, and salt-water marshes, as exist near the mouth of the pseudo-Simois? Mr Gell, indeed, found one little garden below the junction; and we congratulate him on the discovery, as it must, no doubt, have recalled to his recollection the passage in Homer to which we have alluded. But we think it only necessary to look at Morritt's map, or Chevalier's, to be convinced, that the poet's description could never have applied to the Xanthus, or to its banks, below its confluence with the Simois.

In the xxist book Apollo assumes the shape of Agenor, and, running towards the plain, decoys Achilles from the troops, in order to prevent his entering the city with the fugitive Trojans. Now, when Homer mentions the Scamander in the following verses, he must certainly have spoken of it above the junction, if any faith can be put in the maps of the travellers.

Εἰς ὃ γὰρ πύδισι διακίετο πυρρὸς ὄρεσι,
 Στρέφας παρὲς πόταμον βαθυδινήϊα Σκαμάνδρον, &c.

In the battle of the xxth book, the whole plain was filled with troops, and glittered with the armour of men and horses. This battle, then, according to the maps of the travellers, must have been fought above the junction. The Gods took part in the

the strife; Vulcan was opposed to Xanthus. Now, this son of Jupiter was a great and deep-eddying river, that the Gods called Xanthus, and men Scamander. Will it be pretended, that Homer here understood the Scamander, after it had been joined by the Simois, and had passed on beyond the scene of action?

Mr Chevalier tells us, that Homer has chosen to make us acquainted with the breadth of the Scamander; and he quotes the following passage in order to prove it.

— ὁ δὲ πετλήεν ἑλς χερσὶν
 Εὐφύα, μεγάλην ἢ δ' ἐκ ριζῶν ἱριποῦσα
 Κρημὸν ἀπαντα διώσιν, ἐπὶ σελὶ δὲ καλὰ ῥέεθρα
 Ὅζοισιν πυκνίνοισι γαφύρωσιν δὲ μιν αὐτὸν,
 Εἶσω πᾶσ' ἱριποῦσ'. ὁ δ' ἄρ', ἐκ λίμνης ἀγορεύσας,
 "Ἢΐεν τιδίσι ποσὶ κραιπνοῖσι πέτεσθαι. 11. Φ.

Did Mr Chevalier mean to argue from this passage, that the elm tree fell completely across the Scamander? If he did, it must be then evident, from his own account, that he thought that the combat of Achilles and the Xanthus was above the junction of the rivers; for he tells us, that the Simois alone is 300 feet in breadth. But does it appear from Homer that the tree did fall quite across the stream? Nothing like it. Achilles, struggling against the torrent, catches hold of an elm tree that was hanging over it, and brings down the tree with the bank. The fallen tree resists the waters with its thick branches, and serves as a bridge to the hero, who rises by its help out of the flood. Now, if a man were to slip into the Danube, or the Nile, and could catch hold of a great tree, and pull it down into the water, it does not seem impossible that he might save himself in the same way that Achilles did, though nobody would therefore infer that the tree reached to the opposite bank. Homer certainly could have no such meaning; for he says, that the whole plain was inundated.

Αὐτὰρ ὁ βῆ ———
 Ἐς πρὸδιον. το δὲ πᾶν πληθ' ὕδατος ἐκχυμένοιο.

Since it appears, then, that Homer spoke, in the foregoing instances, of the Scamander above its junction with the Simois, we shall leave it to the travellers to explain, how Homer's great, broad, deep, and divine Scamander, has dwindled into the little brook of Bournabachi.

In Mr Chevalier's map, a little canal, connecting this brook with the sea, is denominated the new channel of the Scamander, though the inhabitants of the country ascribe the construction of it to Gazi Hassan, and some of them even assured Mr Chevalier, that they had been employed in its formation. Mr Morritt and Mr Gell, however, boldly call it the *amnis navigabilis* of Pliny. Generous travellers! You tell us, that a portion of the water of

a rivulet, fifteen feet in breadth, is carried off to the sea in a ditch, and then you would persuade us, that this was aavigable river!!!

We learn from Homer, that the Scamander was one of the torrents which came down from the summits of Ida. Demeetrius of Scepsis informed Strabo, that it issued from a hill of Ida called Cotylus, that it ran towards the west, and that though Homer has given it two, it has in reality only one source. Strabo endeavours to account for this seeming incongruity as well as he can; but Mr Chevalier is very angry both with Demeetrius and Strabo. We shall not pretend to determine, whether Strabo's explanation be satisfactory or not; though we have no hesitation in saying, that if any modern traveller pretend that he has found the sources of the Scamander, we shall expect him to agree either with Homer, or with Strabo. If his account answer to the description of Homer, he must have discovered the springs of the Scamander among the summits of Ida; and it must appear, that one of these springs is hot, and enveloped in smoke, while the other is as cold, even in summer, as snow, or ice.

Our readers, who have not been convinced from the accounts of Chevalier and Morritt, that the fountains of Bournabachi are the sources of the Scamander, will not find their doubts removed by the testimony of Mr Gell. This gentleman, instead of climbing to the heights of Ida, walked downwards from the village to the nearest part of the plain.

' We walked downwards from the village into the nearest part of the plain, and came to a neat square cistern surrounded by willows, and formed by several pieces of white marble, and two blocks of granite, within which a copious spring boiled up with considerable force. I was warm with riding, and naturally took some of the water in my hand to drink; *not having at that moment a thought of Homer in my mind.* I was surprised to find that the water was too warm to relieve thirst. My surprise, however, was quickly dissipated, as I concluded that this must be the warm source of the Scamander; and having found that, I knew from the accounts of other travellers, in what direction to look for the cooler sources. We accordingly proceeded to the west, in our way meeting with a *second cistern*, very near the other, and of modern workmanship, *scarcely* to be called a separate source. The water was equally warm, or even more so. At the distance of one hundred and seventy yards, we came to a splash (plash) of water, from which a rapid brook took its rise, and, on the opposite side of it, saw the water rising in large quantities from a perforated rock. I perceived a very considerable difference in the nature of the two springs; for this was cold and refreshing. One of my companions, however, was not affected by the same sensations, *as he thought both of an equal temperature.* This I attributed

buted at the time to a difference only in the habit of body. — — — —
 I am now, however, able to account for the difference in our sensations; for it has been ascertained by the thermometer, that both are warm; yet, as the receptacle of the second is large, while that of the former is confined, the evaporation from the surface alone would be sufficient to lower the temperature very considerably. In fact, it is probable that my friend made trial of the water much nearer to the place where it first issues from the rock, than myself. At all events, the spring passes, among the inhabitants of Bournabachi, for a cold one, while the other is regarded as warm; and that alone is sufficient to determine the point. (p. 8.) 'About one hundred and seventy yards from the warm springs of the Scamander, towards the west, the cold sources are found throwing up a considerable quantity of water from many openings in the rock. It has been discovered by the help of a thermometer, which was thrust into the fissure as far as the arm would permit it to go, that this spring is equally warm with the former.' — — — — 'The Turks say, these (the cold springs) are forty in number.' (p. 76.)

Mr Gell also informs us, that the temperature is equal to 64 degrees of Fahrenheit; though we found it to be no more than 57, and exactly the same in both sources.

The testimony and the reasoning contained in these extracts are very curious indeed; and the logic and the arithmetic of Mr Gell appear equally extraordinary to us. He makes two cisterns, containing warm water, and forty springs of the same temperature with this water, equal to two springs, one hot, and one cold. Where Mr Gell learned algebra, we do not know; but of such an equation as this, we never heard in our lives before.

Homer informs us, that there were two fountains of the Scamander, one of which was extremely hot, and enveloped in smoke, and that the other issues forth, even in summer, as cold as the hail, the snow, or the ice. Now, does Mr Gell really expect us to believe, that the forty warm springs, which make a plash of water near Bournabachi, once formed the cold fountain of the Scamander? He tells us, that the temperature is equal to 64 of Fahrenheit. Who would ever have thought of comparing water at this heat to snow and ice? But our author's apology is very ingenious. If you will only drink the water at a sufficient distance below the source, you may find it cool and refreshing. This, however, will not avail him. If he had looked into the *Iliad*, he would have found, that Homer says the water flows forth, *νεφέην*, like the hail, and the cold snow, and the ice; and these comparisons were, therefore, meant to apply to it as it gushes out of the earth, and not after it has had time, by standing in the pool, to acquire a new temperature by evaporation.

Mr Gell took some of the water in the first cistern to drink, without

without having a thought of Homer in his mind. We readily believe it. Homer says, that the warm source of the Scamander is as hot as fire, and that it is enveloped in smoke. Mr Chevalier boldly asserts (p. 127.), that the thing is not as Homer insinuates; and that the fountain only smokes in winter. But if even this had been true, how did it happen that Mr Gell was not warned, by the smoke, of the heat of the water, when he approached it in the month of December? After all, it must be confessed, that the travellers have clearly made it out, that their description of the sources of the Scamander is perfectly right, provided Homer's is perfectly wrong.

Even if, instead of forty-two springs of the same temperature, and that neither cold nor hot, Mr Gell had been fortunate enough to discover a hot and a cold fountain running into each other, it would not have been a little rash in him to conclude that he had found the sources of the Scamander; as this is, in fact, by no means a singular occurrence in this quarter of the world. At Troas Alexandria, there are natural hot baths in the vicinity of cold springs; and it is a curious circumstance, that very near the principal source of Mr Gell's *Simois*, there are two springs, one hot, and one cold, which both fall into that river, and are much celebrated for their medicinal virtues.

These considerations, we acknowledge, leave us little room to doubt, that the whole of M. Chevalier's speculation is no more than the gay dream of a classical enthusiast, and that he and his followers have been just as successful in ascertaining the site of ancient Ilium, as any of the meritorious inquirers who have amused themselves in determining the true longitude and latitude of the garden of Eden. Supposing, however, for a moment, that the plain of Bournabachi was that of ancient Troy, and that the streams that divide it were the Simois and Scamander of Homer, it appears to us, we acknowledge, that our recent travellers have distributed these names very injudiciously, and given the title of the Simois to the only one of the streams that answers at all to the description of the Scamander.

The source of this river is said by Homer, and, after him, by all the ancients who have mentioned it, to have been in Mount Ida; and in the twelfth book, indeed, *both* the Scamander and the Simois, are expressly described as flowing from the Idæan mountains.

"Ὅσσαί εἰσι" Ἰδαίῳ ὄρειν ἄλλαδ' ἐκρέοντι, &c. Il. XII. 19.

Now, we must protest against the eminence on which Bournabachi stands, being considered as forming any part of Mount Ida. Gargarus is at the distance of forty miles, from which the Idæan ridge extends in a south-westerly direction to the promontory of

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Lectum, and north towards the Propontis. Bournabachi is in itself totally unconnected with any part of this chain of mountains; and the rising ground on the coast, in the whole extent from Lampfacus to Lectum, might, with equal propriety, be called part of Ida. But Mr Gell's Scamander, we have seen, does not flow from any eminence at all; its source is below the town, and is as completely in the plain as any part of its course: the slow and sluggish stream is continued through flat and marshy ground, until it is changed by the ditch or canal of Gazi Hassan.

The source of the Mendere-Sou, again, the Simois of our modern traveller, is in Mount Gargarus, the chief of the Idæan range of hills: It has never been visited by any traveller who has published upon Troy; but it presents one of the grandest and most picturesque scenes with which this part of Asia Minor abounds. The water rises in a vast cavern of white marble, and gushes out by two apertures in the rock, forming, in its fall, a magnificent cascade; and the surrounding precipices being covered with pine, oak, and plane trees, render the whole scene eminently beautiful and imposing. The source, in the month of July, was one of the most copious we ever remember to have seen. The river, after leaving the mountains, having entered the plain of Bairamitch, flows with a rapid current through its whole extent, and, passing Bournabachi a little to the north, empties itself into the sea at the village of Koum-Kalè. Its breadth, in what is called the plain of Troy, is very considerable, being in some parts three hundred feet; and in the first part of its course, it equals in the purity, and always far exceeds in the abundance of its waters, the little stream of the plain. That this description is more in harmony with the general impressions concerning the Scamander, which are received by those who read the *Iliad*, than the account of the rivulet of Bournabachi, seems to be a position that does not require any farther confirmation.

It would be tedious to enlarge upon the testimonies of the ancients, however clear and explicit, as to the larger river being the Scamander; but we proceed to consider the opinion of Herodotus, and we are the more tempted to do this, as it seems to us that a difficult passage in this admirable historian may be thereby explained. In the 7th book of his history, Xerxes is said to have gone from Antandros to Abydos, and, in performing this journey, Mount Ida was on his *left hand*.—*ἐν ἰδῷ δὲ λαβὼν τὴν ἀριστερὴν χεῖρα*. Now, on looking at all the maps of this district, it will be seen that, following the direct line between these two places, he would

would have left Gargarus on his *right* hand: this contradiction is owing to the inaccuracy of all the charts respecting the gulph of Adramyttium, the most eastern part of which bears N. E. from the top of Gargarus, and consequently, on departing from Antandros, which was situated at the extremity of the gulph, Gargarus would be on his left hand. But to proceed—Xerxes, after passing Gargarus, arrived at the banks of the Scamander, and the army, after drinking of its waters, continued their road to Troy. Now, if Troy were on the site of Bournabachi, the road of Xerxes must have been through the plain of Bairamitch, and along the banks of Mr Gell's Simois, for the distance of near thirty miles. Mr Morritt is aware of this difficulty, and pretends that the army of Xerxes passed on without drinking of his Simois, as it was only a muddy and troubled torrent: but, however it might have appeared to Mr Morritt, we certainly found its water most admirable, and infinitely more clear and refreshing than that of his Scamander. The Turks also, in the neighbourhood, attributed to it the peculiar virtue of not injuring those persons who drank of it, when heated by exercise; nor can we think that Xerxes and his army found it less agreeable: we speak not of the river after it has entered the rich plain of Bournabachi, but of that part of it which Xerxes must have passed in journeying from Gargarus to the supposed situation of Troy. From this statement it appears evident to us, that this river was, in the opinion of Herodotus, the Scamander of Homer. But, in addition, he proceeds to say that Xerxes 'from this river passed to Troy'; —ἐπὶ τούτων δὲ τὸν ποταμὸν ὡς ἀπὸ τοῦ Εὐφράτη, τὸ Πείριον Πιερύαμον ἀνέβη, ὅπου ἔχον θύσασθαι. Polym. μυ.—Now, had he gone with his army to drink where Messrs Chevalier, Morritt, and Gell direct him, viz. to the sources of the rivulet of Bournabachi, he must absolutely have passed through part of the town in order to arrive at them, instead of meeting with the water in his way to the city: moreover, there is no intimation of his drinking at the *sources* of the stream; on the contrary, he arrives at once on the banks of the river,—which would be impossible, according to Mr Gell's description of the Scamander.

Before we dismiss this part of the question, we must take notice of another peculiarity in the arguments of these gentlemen. It being evident that the Scamander was more honoured by the Trojans than the Simois, they are reduced to some difficulty, in order to explain why the little rivulet of Bournabachi should be held in higher estimation than the larger river of the hills: for this purpose, the waters of the latter are first said to be impure, which we cannot admit to be the case; and then its stream

is described as inconstant, sometimes rolling along with great impetuosity, but, for the greatest part of the year, leaving its channel entirely dry.

If this statement were true, nothing conclusive could be gathered from it; for we find that the veneration of the ancients was not regulated by such circumstances. Thus at Athens, the *Ilissus*, excepting a very few weeks in the year, is perfectly dry; while, on the other hand, the *Cephissus* not only affords a plentiful stream of water the whole year, but, by its channel being carried in various directions amongst the olive trees, confers the most essential benefit on the inhabitants. Notwithstanding this, we scarcely ever find the *Cephissus* celebrated by any of the poets. It was on the banks of the *Ilissus* that *Orythia* was playing when carried off by *Boreas*; it was the *Ilissus* which gave a name to the *Muses*, and on its banks they had their altars; it was with the waters of the *Ilissus* that the initiated into the lesser mysteries were purified. The real state of the fact, however, renders all this disquisition unnecessary: for although the *Menderes* Sou, like all streams which run in part through a mountainous district, is liable to be greatly increased by the occasional swelling of those torrents which run into it, and therefore its stream may properly be called inconstant; yet we deny that at any time of the year it is without a considerable body of water. The universal assertion of the neighbouring Turks, and the large fish caught in it, sufficiently prove this; and when we saw it in the month of July, when its waters might fairly be considered at the lowest, the current was at least two hundred feet in breadth, near the place where it falls into the sea.

III. Mr Bryant has referred to two passages in Homer, from which it clearly appears, that *Troy* must have been built in the plain, and at a considerable distance from the mountains of *Ida*.

— ἐπὶ οὐπὼ Ἰλίου ἱερῇ

Ἐν πεδίῳ πεπóλις. &c. *Il. Y.* 216.

Οἶσθα γὰρ ὡς κατὰ ἄστυ ἐδμεθα, τηλόθι δ' ὕλην

Ἀξίμεν ἔξ ὄρεος. *Il. Ω.* 662.

Some persons, however, still maintain, that the situation of *Bournabachi* corresponds with the account of *Troy* as given by the poet. *Bournabachi*, they say, stands upon a small eminence rising from the plain, and is separated by a considerable interval from the *Idæan* mountains. This is their language, when they are reminded that *Troy* was built in a plain; but when it is stated, that the sources of the *Scamander* must be sought for among the summits of *Ida*, then they tell us that the hill of *Bournabachi* belongs to the great chain of the *Idæan* mountains, and then we hear of its steep ascents and craggy precipices.

There is an unlucky passage in *Homer*, which is totally unintelligible,

telligible, if the hill of Bournabachi be the site of the ancient Troy. We shall request of our readers to turn to the twenty-first book of the *Iliad*, and to read from verse 487 to verse 571. They will then see, that it was at the beech tree, which was very near the walls, that Agenor, instigated by Apollo, deliberated with himself whether or not he should encounter Achilles. Let them particularly mark the words of Agenor at verse 555. Now we ask, how Agenor was to get from the position where he stood, to the steeps and thickets of Ida, by the Ileian plain? The scholiast says that this was the place, ἐν δ' Ἰλίου ἱερῶς ἐστίν. * If, then, the maps of the travellers be accurate, and if they have put Troy and the tomb of Ilus in their proper places, this passage in Agenor's speech is, as we have said, unintelligible. Every step that Agenor took across the plain must have carried him further from the mountain, and nearer to the shore.

Mr Gell, after the example of Morritt and Chevalier, frequently speaks of the *hill* of wild fig trees. We do not recollect that Homer has made mention of such a hill. In the sixth book, Andromache says to Hector, 'Post the army nigh the wild fig tree, where the city is chiefly accessible, and the wall may be most easily scaled.' In the twenty-second book, Achilles and Hector ran near the watch-tower, and the wild fig-tree that is much exposed to the winds. Even the words quoted from Strabo by Mr Dalzel, do not authorize the travellers to speak of a *hill* of wild fig-trees. It is, however, convenient for them to do so, as the hill of Bournabachi is surrounded by other hills. But we must beg leave to remind our readers, that this same wild fig-tree is described by Homer as being in the middle of the plain; and since the wild fig-tree was very near the city, the city could not have been far from the middle of the plain.

Οἱ δὲ παρ' Ἰλίου σῆμα παλαιῶν Δαρδανίδας,

Μέσσην καμπέδιον παρ' ἑρινὸν ἐστέοντο,

Ἰάμενοι πόλεως (Il. A. 166.)

Mr Bryant's translation of this passage ought to be thus amended. 'In the mean while, the Trojans pressed forwards by the tomb of Ilus, through the middle of the plain by the wild fig-tree, striving to get up to the city.' It is surprising that this acute writer did not perceive the full importance of this passage to his argument.

It had been generally understood from Homer, that Hector had been pursued by Achilles three times round the walls of Troy.

* We are informed by Eustathius, that some were accustomed to write ἰδνόν for ἰλνόν. The travellers, we suppose, are agreed with us, in thinking the latter the right reading, as they have taken no notice of the former.

Mr Chevalier quickly perceived the necessity of getting rid of this notion, as it was incompatible with his hypothesis. He therefore strenuously contended, that the Greek preposition *περί* ought in this instance to be translated *near*, *beside*, *hard-by*. We confess we were astonished to find that Mr Bryant so easily abandoned this point. The question is, whether Homer ever uses the preposition *περί* before the accusative case in any other sense than as signifying *round*, or *about*? These words are often employed in our own language, without a strict attention to their original meaning and proper signification. We speak of the gardens *round* London, without thereby understanding, that London is quite encircled by gardens; and we discourse *about* many things, without thinking of the primary meaning of the word *about*, which we take to have been originally synonymous with *around*. In Greek, the preposition *περί* is often used with the same inattention to its rigid and proper sense. Thus, *περί τρίτην ὥραν*, about the third hour—*περί ἑβδομήκοντα ναῖς*, about seventy ships—*τα περί ἐμε*, the things which belong to me—*οἱ περί Σωκράτην*, those about Socrates—*περί καλὰ ῥέεθρα*, about the beautiful streams—*περί τείχος*, about the wall. But after allowing all this latitude of sense to the preposition, there still can be no doubt that, before the accusative case, it generally signifies *round*, and especially when employed in any local description. We will even venture to assert, that it must be so understood, except where the sense necessarily limits the meaning. When Homer says,

τὰ περί καλὰ ῥέεθρα ὅλῃς ποταμοῖο πεφύκει,

we immediately perceive that its full force cannot be given to the preposition, because, strictly speaking, the trees and plants could not grow *round* the river. Neither, when he says,

πάνη γὰρ περί τείχος ἄρῳρει θεοπιδᾶς πύρ,

can we literally understand *περί* to signify *round*, since the wall ran in a long line, and the fire was only on the side of the wall next the plain; but when no such difficulty exists, then its full meaning must be given to the preposition. Mr Dalzel, in his learned note, observes, that *μαρναμένοι περί ἄστυ* ought to be translated 'fighting about, or near the city.' But if Troy were built in a plain, as Homer says it was, there is no impropriety in supposing, that the hostile armies were engaged in different divisions, on all sides of the city. Hector says, 'Let the sacred heralds proclaim, that the youth arrived at the age of puberty, and the old men hoary with time, keep watch *round* the city, on the god-built towers.'* In this place, *περί ἄστυ* can signify neither *about*, nor *near*, the city; but must bear the interpretation which we have given it. Why, however, could not Hector have been satisfied

tified with having the walls guarded, which were next the plain, if Troy had stood on the hill of Bournabachi, and if the Greeks had always fought *before*, and never *round* Ilium? When Andromache so pathetically deplores her fate, in case she should be carried a captive into Greece, she adds, ‘and then sometimes there will be some one who shall say, as he beholds me weeping, This was the wife of Hector, who was the most distinguished warrior among the Trojan tamers of horses, when they fought *round* Ilium.’ Ὅτι Ἴλιον ἀμφεμάχοντο. Achilles in the ninth book expresses himself not less clearly,

Ἐι μὲν κ' αὖθις μιν Τρώων πόλιν ἀμφεμάχουμαι,
Ὀλέσθω μὲν μοι νῆσος, &c.

From all these circumstances, we are still inclined to think that Homer meant to use the preposition *πῆρι* in its common signification before the accusative case, when he repeated it no less than five times in speaking of Hector's flight *round* the walls of Troy. If our limits allowed us, we could quote various testimonies to prove, that this was the sense in which he was understood by the ancients; and we cannot reject so much evidence, merely that the travellers may have a difficulty the less in persuading their readers that they have discovered the site of Ilium on the hill of Bournabachi. Mr Gell, indeed, is pleased to allege, that Virgil must have understood Homer in the sense for which he contends; because, in a passage which is evidently copied from that now under consideration, he makes Turnus run in a circular direction *before* the walls, and not *round* them. We shall not stop to dispute this point with him; because, whether Virgil believed that Hector fled thrice round the walls or not, he certainly believed that his body was dragged thrice round them, which is exactly the same thing in relation to the present argument.

‘Ter *circum* Iliacos raptaverat Hectora muros.’

But perhaps Mr Gell is ready to show that *circum* does not properly signify around, any more than *πῆρι*.

Till we took up Mr Gell's book, we will confess we had neither read or seen any thing which could lead us to believe that there still existed any remains of ancient Troy: and recollected, without any emotions of scepticism, the lamentation which attested its complete destruction nearly two thousand years ago—*jam seges est, ubi Troja fuit: and etiam periere ruinae*. Mr Gell, however, was almost persuaded that he found some of the original marbles of Troy. He discovered the remnant of a tower of considerable dimensions, and the vestiges of the wall which encircled the acropolis: such vestiges, he adds, may be found on almost every side of the Pergama. That there are vestiges of buildings, is undeniable; but from what *data* Mr Gell thought himself entitled to

ascribe them to so remote an antiquity, we do not pretend to understand. In the mean time, we will venture to put a few questions to him, which we hope he will resolve in the next edition of his work. How happened it that Alexander fought for Troy among the fields, and not on the summit of the hill called Bournabachi by the Turks? How came it that the Macedonian hero was not led by these traces, which are so distinct in our days, to build upon this spot? Is it not rather strange that Cæsar could not discover the vestiges which were so obvious to Mr Gell? Why did Lucan say, that even the very ruins were destroyed? Is it not extraordinary that Hestiza Alexandrina, a learned lady, who wrote concerning Troy, and who was a native of Troas, should have known nothing of these remains of the ancient Ilium? For what purpose did Demetrius of Scepsis inform Strabo, that no trace was preserved of the ancient city? We do not doubt that Mr Gell found all the vestiges of which he speaks, old marbles, and capitals of the Ionic order turned upside down in the walls of the Aga's house; but we certainly doubt as little, that the ruins on the hill of Bournabachi belonged to some of those numerous cities which, according to Strabo, were rebuilt after the Trojan war.

On the summit of the hill, Mr Gell tells us he found the tumulus of Hector, 'which consists of, a large conic heap of stones, apparently thrown together without any order or regularity, and on the top of it is a small patch of earth producing long grass and weeds.' * When Cæsar visited the Troad, and happened carelessly to walk among some long grass, a native of Phrygia forbade him to trade on the ashes of Hector.

—*Securus in alto*

Gramine ponebat gressus; Phryx incola manes

Heftoreos calcare vetat.—

Who then can doubt that our traveller has discovered the very spot where Cæsar trod, and where Hector lay? The long grass still grows on the tomb; though Mr Gell, with an eye attentive to the effects of time and nature, observed that, when he was there, the herbs were withered!† There are other evidences, however, still more infallible. Pausanias relates, that the Thebans were directed by an oracle to carry the ashes of Hector to Thebes. Our traveller found some *faint* traces of an opening having been made in the tumulus; and this, he thinks, is probably the testimony of their religious obedience. How fortunate a coincidence of circumstances for Mr Gell!!! But this gentleman's good luck in making discoveries, can only be equalled by his sagacity in seeking for them. He not only finds the tombs of
men,

men, who died before the existence of any certain history—he not only shews the marsh, where Ulysses passed the night above three thousand years ago—but he remarks, ‘ that the ground near the gardens seems to have preserved in some degree the same appearance as in the time of Homer, who observed that there was a fallow field in this situation.’ *Papa!* Who shall now deny that Troy stood on the hill of Bournabachi?

To be serious, however, we conceive that the tomb of Hector, upon which Mr Gell has made so exulting a stand for his theory, is among the most formidable of the stumbling-blocks that have fallen in his way. It consists of small stones, no doubt; and this is the sole proof of its identity. What if Homer should give no authority for supposing that the tumulus of Hector consisted of any thing but earth? The lines in the last book are,

Λίφα δ' ἄρ' ἐς κοίλην κάπτιον ἔσαν· αὐτὰρ ὕπερθε

Πυκνοῖσιν λάισσι κατιστορεσαν μεγάλοισι.

Ῥίμφα δὲ σῆμα ἔχεν. ———

From which passage we conceive it is quite plain, that the body was laid in a grave, and covered with a number of great stones, after which the earth was heaped over it. Mr Gell, after Mr Chevalier, chuses to understand ‘ a number of great stones,’ — ‘ a great number of small stones:’ whereas it is obvious that the large stones were placed to protect the body from the pressure of the earth, the heaping up of which is specified as a separate operation; and no mention whatever is made of such a pile of small loose stones as occur in the tumulus of Bournabachi. To us, indeed, it did not appear that there is any reason for considering this heap as sepulchral at all. It rather occurred to us, that as the hill was formerly cultivated, these stones had been collected together for the purpose of clearing the ground; a circumstance which is rendered more probable from the existence of several other heaps, though of less magnitude, on the adjoining parts of the hill.

It has been the practice of almost every nation, at some period of their history, to raise mounds of earth over the dead: and as we learn from Strabo, that the Mysians and Phrygians were accustomed to erect such monuments, it certainly cannot appear wonderful that these tumuli, as they are called, should be more frequent in Asia Minor, than on the continent of European Greece; or that they should be found in considerable numbers in the Troad, which appears, by the remains of several towns, to have been formerly so well inhabited. With all these facilities, we acknowledge we are rather surprised that Mr Gell has succeeded so ill in identifying a selection of these *barrows* with the monuments of Homer's heroes. Two of these mounds, however, situate near the mouth of the Menderes Sou, have been pointed out by him

as the tombs of Achilles and Patroclus: their vicinity to each other, is the only possible foundation of such a supposition; for, in other respects, nothing can differ more from Homer's description. In the account which Agamemnon gives to Achilles, in the xxivth Book of the *Odyssey*, of the funeral rites with which he had been honoured by the Greeks, he describes the tomb as large, situated on a promontory, and visible from afar.

Ἀμφ' αὐτοῖσιν, δῖπυτα μέγαν καὶ ἀρύμωνα τύμβον,

Χίμαριν Ἀργείων ἦρος τεκτὸς ἀνιχμητῶαν,

Ἄκτῃ ἐπὶ περὶ ὄρη, ἐπὶ πλατῇ Ἑλλησπόντῳ.

Now, these tombs are at some distance from the sea, and perfectly on a level with it: it is, moreover, a fact, that a person unacquainted with the history of the Trojan war, although he would be struck with the appearance of several other mounds, might very easily leave these unnoticed, in failing at an inconsiderable distance from the coast. This is perfectly incompatible, we conceive, with what we are made to believe concerning the great magnitude and conspicuous situation of the tomb of Achilles.

The larger of these mounds was opened some years since, by the order of M. de Choiseul, the French ambassador at the Porte; and its contents afforded, to many, an additional proof of its identity with the sepulchre of Achilles. A small bronze statue, and fragments of earthen vases were discovered in it; but Mr Chevalier's representation of the figure, (*if we may believe the artist who first discovered that it was a figure, and not the point of a lance*), is extremely incorrect; and from an authentic cast which we have seen, made by this same artist, there can be no doubt that by the manner of the drapery, and general style of the work, it is not to be referred to a period of higher antiquity, than when the country was under the dominion of the Romans. But even if this tomb were more ancient, and if, for the sake of argument, we suppose it to be the same, round which Alexander danced stark-naked in his frenzy; there is no reason why we should not conclude that he was equally mistaken as in the situation of the city, which certainly was an object of greater notoriety.

The ashes of Antilochus, we learn from Homer, were placed in the same tomb with those of Achilles and Patroclus; but we do not find any mention of a tumulus or cenotaph being raised in his honour. At the distance of more than a mile from those just mentioned, is a mound most conspicuously placed on a promontory, and which is indeed a land-mark to sailors far out at sea: this, Mr Chevalier and Mr Gell have been pleased to denominate the tomb of Antilochus,—but with a still less degree of probability; for if any tomb had been erected to his memory, it would doubtless have been near that of Achilles, in which his remains

were

were deposited : it would also have been of a smaller size, as was that of Patroclus ; whereas, this is of a magnitude which is not equalled by those called the monuments of the other two friends, even if taken together. With the same wantonness, and without the shadow of foundation, a tumulus on the shore still farther south, is called that of Penelope the Bœotian. He is said by Homer to have fallen at Troy ; but there is still extant the epitaph on his tomb on the banks of the Cephissus, in his own country. (*Antholog.* ed. Steph. 499.) On that point of land which is called the Rheræan Promontory, though at the distance of a mile from the sea, may be found a tumulus which is said to be that of Ajax. In order to disprove this assertion, nothing more is requisite than the slightest examination of the barrow itself, which we shall find to consist of the foundations and rubbish of a building, and which, from the arches that remain, and the quantity of cement scattered about, certainly cannot be considered as anterior to the subjection of the country by the Romans ; though Chevalier, in the total absence of all architectural knowledge, has adduced the mode of building as a proof of its vast antiquity.

Mr Gell (plate 17.) gives us a representation of what he calls the tomb of Ilus, and talks with great certainty about its identity with the tomb mentioned by Homer. Mr Chevalier, however, is doubtful if any traces remained ; and Mr Morritt fairly confesses that he could find none ; but Mr Gell not only discovers this monument, but discovers it in a situation where it is not placed by Homer, and consequently where it never could have existed, *viz.* between the junction of the rivers and the sea. Now Homer, in the twenty-fourth book, makes Priam pass the tomb of Ilus before he allows his mules and horses to drink at the river. But as this part of the plain is annually flooded, if any such tumulus had existed, it must necessarily have been long since destroyed ; and Mr Gell has probably been deceived by some irregularly shaped mounds of sand, of which there are several in the neighbourhood. With equal acuteness of sight, our traveller has discovered Baticia or the tomb of Myrinna, although it has eluded the researches of former writers ; but, indeed, Homer's appellation of *αιπια κολαση*, a high and pointed hill, would seem to render it sufficiently obvious. This is, however, too clear for Mr Gell ; and accordingly, we find him asserting that a very low mound, and not of a conical shape, is the Baticia of Homer !

If Mr Gell, however, has the advantage of Chevalier and Morritt with regard to the tomb of Ilus, he very handsomely yields the *par* to the former of these gentlemen with regard to the monument of Æsyetes. Mr Chevalier is perfectly confident that

a hillock called *Udjek Taphè* must have been that monument, because the space between the promontories can be distinctly seen from it. Mr Gell, however, is by no means so positive; for he tells us, that 'of all the monuments now existing, that of *Udjek* has the best title to the name of *Æsyetes* according to Homer, if that near *Tchiblak* be excepted.' This best title, then, is only second best; and a second best title to identity, is what, we acknowledge, we do not understand.

There is yet a passage in Homer, which, we think, must be very perplexing to the travellers, in their identification of the monuments. Nestor, in the third book of the *Odyssey*, distinctly tells Telemachus, that Achilles, Ajax, Patroclus, and Antilochus, were buried where they fought. Now, where was that? *πῆρ' αὖ γαίης Πριάμου ἀρούρης*—around, as we should translate it, the great city of king Priam—hardby, beside, at, as the travellers choose to render it. But it appears from Mr Gell's map, that the monuments in question are nine miles from Bournabachi; and from Mr Chevalier's, that they are more than ten.

From the statement which we have made, our readers, we trust, will be in some degree enabled to judge of the value of Mr Gell's publication; for, if they think him entirely mistaken concerning the scene of action of the *Iliad*, it is not likely that they will very readily pay ten guineas for his descriptions and drawings of Bournabachi and its environs. We are ready to bear testimony to the general accuracy of the delineations; and yet we cannot help being astonished, that he should have collected the materials of his book,—that he should have observed, read, reasoned, described, and drawn, in three short winter days, more than we, sluggish children of the North, should have expected him to have done in as many months. But Mr Gell did all this, and much more. He went through the common duties of an English morning toilette; brushed his teeth every day, to the astonishment of the Turks; performed his ablutions with a scrupulousness worthy of a Mussulman; drank his Muscatel white wine; took angles; made a map; forced his way into the apartment of the women; occasioned the Aga a terrible fit of jealousy; and went to a wedding at the Asiatic castle of the Dardanelles, where two men, dressed like devils, fought with torches, and where a hideous African black carried off many trophies and great applause.

The plates, which we are told are accurately copied, prove that Mr Gell is a tolerable draughtsman; though we could have sometimes wished, that the sky and the water had not been so *very blue*, and that the fields and the trees had not been so *very green*.

To elegance of style Mr Gell disclaims all pretensions; and we readily acquit him of it. Where did he learn to write *knowls* and *splasbes*, for *knolls* and *plashes*?

We shall now conclude this article with expressing a hope, that if any future traveller publish an account of the Troad, he will not dream of what he is to discover before he goes there, like Mr Chevalier; that he will not forget to make his map on the spot, like Mr Morritt; and that he will not do every thing in a hurry, like Mr Gell: We believe we need not caution him not to drink of the warm spring of Bournabachi, without having a thought of Homer in his mind.

ART. II. *Hints to the Manufacturers of Great Britain on the consequences of the Irish Union, and the System since pursued, of borrowing in England for the service of Ireland.* By the Earl of Lauderdale. pp. 51. 8vo. Edinburgh, Constable & Co.; London, Longman; And Manchester, Thomsons. 1805.

ALTHOUGH, in this tract, Lord Lauderdale discusses a practical subject of political economy, yet he carries on the argument by appeals to the general principles of the science. There is a considerable degree of force and precision in his manner of stating the question; and the reasoning has no connexion with the erroneous doctrines contained in his larger work. The author may even deserve praise for adducing a new argument upon a topic already well considered; and the applause due to ingenuity would certainly be his, if real ingenuity could exist without solidity. We do not by any means assert, that in the tone and temper of his observations a spirit of faction can be discovered; but we conceive that the workings of this principle may be traced in the plan of the piece, and that no feelings, less strong, could have made a person, so well acquainted with the science as Lord Lauderdale, forget the most undisputed doctrines of political economy; nay, appeal to the most exploded errors of the older systems, so uniformly as he has done in the construction of these '*Hints*.' We purpose to lay before our readers an abstract of the argument, and a brief exposition of its fallacy. The title of the pamphlet might give some ground for expecting a general attack upon the Union; but the noble author confines himself entirely to one of its supposed consequences—the practice of raising in England the loans required for the Irish service.

Our author begins by drawing a parallel between the history of civil liberty, and of the freedom of trade. The former is now

no longer in danger from violent exertions of Royal authority, nor the latter from direct prohibitions and grants of monopoly. But as the one may be undermined by the milder and more subtle exercise of influence, so may the other, according to Lord Lauderdale, be gradually impaired by the commercial and financial arrangements which are constantly innovating our economical system. The freedom of trade, he observes, is the birthright of Englishmen; and he gives an appendix of quotations from Lord Coke, and C. J. Fortescue, to illustrate this point—with a list of the statutes by which that invaluable privilege is secured. The concluding sentence of the pamphlet, too, sums up the whole argument, by stating, that if the present system be pursued, ‘our manufacturers will discover, that the freedom of trade which Lord Coke pronounced to be their birthright, and which is guarded and recognized by so many statutes, has been imperceptibly, but effectually, cramped and impaired by the financial arrangements between England and Ireland.’ p. 47.

It must be remembered, then, that our author holds the freedom of trade to be struck at by the practice of borrowing in England for the service of Ireland; and we are now to see how this practice produces such an effect.

The remittances made from Ireland to the absentees, exceeded 136,000*l.* at the time of the revolution; and this sum, in 1729, had increased to 627,000*l.* Our author contends that the non-residence occasioned by the Union and other circumstances, must have augmented those remittances, between the year 1729 and the present period, at least in the proportion above stated of 136 to 627. Hence he infers, that the sum of 2,890,000*l.* is the smallest sum which we can admit to be the amount of absentee remittances at this day. But, besides the remittances for absentee expenditure, the practice of borrowing in England for the Irish service, occasions a remittance of a million and a half to London. The whole sum, then, which (to use Lord Lauderdale’s expression) must now annually be sent over from Ireland to Great Britain, without any return, amounts to 4,390,000*l.*; nay, as the practice in question is continued, and as the absentee estates rise in value, the amount of this remittance must increase. Now, the excess of exports above imports in Ireland, is about 1,400,000*l.* according to Lord Lauderdale’s computation: Therefore, says he, there remains a sum of nearly three millions to be provided for. How can Ireland find this? Mines she has none; and all the coin in her circulation could not pay the balance for one year. Goods therefore must be sent; a demand must be created in the English market for Irish commodities; and the manner in which this will be effected, our author thinks it not difficult to shew.

So

So long as any gold remains in Ireland, the difference of exchange between the two countries may be limited by the expence of transporting and insuring bullion from the one to the other. But when the stock is exhausted, no such limits can be affixed. Universal experience, and especially the history of our remittances to the Continent during the last war, demonstrates, that the exchange must always be against the country which has a balance of debt to pay; and that the exchange must rise against it, until either gold is found to discharge the debt, or the exportation of commodities is made at prices sufficiently low to force the market. The rise of the exchange against Ireland will therefore operate as a direct premium upon the exportation of Irish goods into Great Britain; and this country will be glutted with the manufactures of the sister kingdom, in the same manner that the Continent was filled with British produce during the continuance of the unfavourable exchange with Hamburgh, which was owing to the same cause—large remittances from Britain to the Continent: nay, as gold is more scarce in Ireland than it then was in England, our author contends, that the markets of this country will be more filled with Irish manufactures, than the German markets were with English goods during the period alluded to. The remittance of the loans to Ireland, is the only thing which prevents this effect from being already felt. As soon as that practice ceases, the interest of all the loans contracted in England, for Irish service, must be annually remitted from Ireland, without any remittance of principal from England to Ireland: And then there is but one way of providing for this balance;—the English markets must be filled with Irish goods, at such prices as will enable the Irish manufacturer to undersell the manufacturer of this country.

Our author, at this part of his argument, enters into several instructive details upon the comparative effects of labour and skill in promoting those branches of manufacture which are likely to be affected by the forced competition from Ireland. He shews, we think, very clearly, that it is labour, and not skill, which is chiefly requisite to the production of the main articles in the list; And, that a want of capital should prevent Ireland from beating us in our own markets, he conceives to be impossible; from the consideration, that Ireland will acquire capital both by the progress of the operation in question, and by its effects in drawing English capitalists over to the sister kingdom. Thus, neither our superior skill, nor our superior capital, will enable us to resist the competition of our Irish neighbours; our manufactures will be ruined, our manufacturers forced to emigrate, and the remittances of Irish interest will thus consummate the destruction of British industry,

industry,—as the remittances of tribute from the provinces of Rome, in the form of grain, ruined the agriculture of the Roman territory.

The sum and substance of this argument may therefore be reduced to the following propositions. The practice of borrowing in England, for the service of Ireland, occasions a violent change in the commercial intercourse between the two countries, and forces a quantity of Irish produce into the English market, proportional to the interest of the sums borrowed; and thus tends to undermine the manufacturing industry of England. We purposely leave out of view a variety of points stated in the subordinate parts of Lord Lauderdale's inquiry; and, in order that the way may be cleared for the discussion of the main argument, we offer no objections to his statements of the sums mentioned in the above abstract of his computations. Our dissent is quite general, and is entered against his fundamental principles; nor can it be affected, we conceive, by those farther illustrations which he promises to give, should his doctrine be controverted. (p. 46.)

The place where a loan is most advantageously contracted for any part of the empire, must depend upon the distribution of those masses of unemployed capital which naturally seek the service of the state, in the manner frequently described in former articles of this Journal. The metropolis of the empire is, from a variety of circumstances, the chief resort of the proprietors of that capital; but it is not the only resort; and portions of stock are accordingly drawn from the most distant provinces into the public funds. The greatest saving, however, is made to the Government and to the country, when the loan is contracted in the place of greatest resort of capitalists; because their competition gives the Government better terms, and because the lenders save the expence of transport and insurance. If a loan is opened in Dublin, a portion of English capital must travel thither, unless it is maintained that all the money wanted can be found in Dublin; and the contracting of the loan in London, will assuredly not prevent some Irish capital from finding its way across the Channel. But in order to prove that the loan should be contracted in Dublin, rather than in London, Lord Lauderdale must begin by shewing that the kind of stock in question abounds more in the former than in the latter place. The loss incurred by sending over to Ireland, capital borrowed in England for the Irish service, is evidently out of the question: for, had the loan been opened in Dublin, the same capital must have travelled thither at the same expence; and the expence must have been defrayed by the same parties, *i. e.* by the borrowers, either in actual payment for its transport, or, which is the same thing, in a *bonus* to the receivers of the loan to tempt them to send it,—unless, indeed, the portion which comes from

from this side of the water, is so inconsiderable, that the whole terms of the transaction may be regulated by the sums obtained immediately in Ireland. All these considerations have been neglected by Lord Lauderdale, who seems to view the place where loans are contracted on the cheapest terms, as a matter of arbitrary arrangement, and whose whole argument proceeds upon the assumption, that the entire capital lent to the government, must belong to the spot where the loan is opened. Borrowing in England, according to him, lays Ireland under annual contribution to the whole amount of the interest, as if the Irish capital which would be lent to the Government, were the transaction carried on in Dublin, can be held as excluded from this channel by the circumstance of opening the loan in London. It surely need not be demonstrated, however, that the same portion of Irish stock will either be vested directly in such a loan, or will fill up the vacancy occasioned by English stock being drawn thither. Whichever of these things happens, the interest paid by Ireland, will go precisely to the same quarters as if the loan had been contracted in Dublin. If the Irish capital is vested in the loan, the interest will be paid to its proprietors directly; if that capital supplies the place of British stock lent to Government, its profits will be returned from Britain to Ireland, at the same time that the interest of the capital which it supplants is remitted from Ireland to Britain. In like manner, the opening a loan in Dublin could never prevent a remittance of the interest to Britain, unless it is pretended that such an arrangement would *create* a clear surplus capital in Ireland; for a great portion of British capital would either be drawn over at once, and lent to the government in Dublin, or would be attracted to replace the Irish capital which was to be lent to Government; and, in both cases, its profits would be remitted to Britain. This is a fundamental objection to all Lord Lauderdale's speculations. But other considerations naturally suggest themselves in opposition to his tenets, even upon the peculiar grounds on which he has placed the discussion.

The great difficulty, according to Lord Lauderdale, consists in providing the interest which Ireland must continue to remit for the sums borrowed from England, after the assistance of new loans shall fail. Admitting, then, what this argument takes for granted, that the act of raising the loan in London draws more English capital into the service of Ireland than would otherwise go to that quarter; let us look at the whole extent of this difficulty. The sums transmitted from England, are surely not annihilated in Ireland; they continue, in various forms, to yield a revenue which will permanently assist in defraying the interest to be paid for the use of them. But, placing this consideration entirely out of view;—either Ireland has within her own bounds capital to
the

the amount of the loans, or she has not. If she has not, there is an end of the argument against borrowing in England. If she has, the revenue yielded by that capital will suffice to pay the interest due to England; for it will remain in the hands of individuals, in various channels of profitable employment; and a part of its annual returns will be remitted to the creditor country.

But the manner of making this remittance, affords our author the chief part of his argument. The interest of the debt must be sent over, according to him, in Irish manufactures, so cheap as to ruin our own. Now, we may ask, how the necessity of making this remittance to England, instead of keeping the interest in Ireland, can alter either the total supply of, or the total demand for, Irish manufactures? The same industry will be exerted, in the one case, as in the other; and the same persons will continue to want Irish goods, whether the Irish funds are the property of persons residing on the east or on the west of the Channel. Supposing that the rate of exchange furnished a temptation to send these goods at low prices into the English markets, what would become of the former purchasers,—of the persons in Ireland, or in America, who used to buy them before the exchange was unfavourable? Those persons must still buy them, and must furnish a price which can be paid to the English creditors of Ireland, or, which is the same thing, must buy them of those creditors. The supply of, and the demand for English manufacturers, must also remain the same. So that no change whatever can be produced upon the market for goods produced by both countries, unless it is asserted that the remittance of interest is attended with a *clear addition* to the total amount of goods manufactured in the debtor country; and if this happy consequence is admitted to flow from the arrangement in question, it surely requires no farther defence, and admits of no higher praise.

It may, however, reduce the whole of this discussion to a more narrow compass, if we now remind our author, that there is no one view of the subject which does not apply to the financial arrangements between different parts of Great Britain. Every thing which can be asserted of loans raised in London for the service of Ireland, must be applicable to loans raised in London for the service of Yorkshire. The channel which separates the two islands, cannot surely affect this question. He who maintains that the loans wanted for the public service in Ireland, should be negotiated in Dublin, must, if he is consistent, recommend that a loan should be opened in every county town, for the service of the district. Certainly, the very same difficulties lie in the way of remitting, from Yorkshire to London, the sums required to defray the share borne by that county in the payment

ment of the public creditors, which Lord Lauderdale has alleged will prevent Ireland from paying her English creditors their yearly revenue. Luckily, the same facilities exist in the two cases; and the internal circulation of the Island is as little affected by the arrangement which makes London the centre of its financial operations, as the great internal circulation of the empire, composed of both Islands, is deranged by extending the same improvement a step further, and making their common metropolis also the centre of the whole imperial administration of finance.

It is not difficult to perceive in what manner this circulation is carried on, so far as affects the present discussion. Let us suppose that there are no more loans required for the service of Ireland, and that the interest of former loans continues to be remitted from thence, just as the interest of the loans, shared by capitalists in London, continues to be remitted from the provinces, after the event of a peace precludes the necessity of borrowing every year. Ultimately only one effect can follow from the constitution of the debt and the consequent payment of interest—the creditors must receive part of the taxes raised in the debtor country. Suppose they reside in the debtor country, still they must receive it; and the same circumstances that enable the payers of taxes to contribute when the public creditor resides in their neighbourhood, must enable them to contribute to the very same extent when he resides at a greater distance. The manufacturer who paid taxes by the profits on cloth sold in Ireland, and thus contributed part of the interest paid by Government to the capitalist residing in Dublin, will surely sell his cloth for the same profit after that capitalist shall have removed to London; and the expence of transmitting the interest from Dublin to London is all that can enter into the present question,—an expence occasioned by the want of capital in Ireland, and not at all affected by the choice of the place where the loan is contracted. When one part of the interest has been sent over, Irish commodities will be sold in England to bring it back, or in other countries to replace it. The difficulty is not to get money, but goods; and if Ireland can manufacture enough to pay the interest of her debt in Dublin, she will find it easy to make the same payments in London.

These considerations, it appears to us, exhaust the whole question; yet it is impossible to dismiss it entirely from our consideration, without taking some notice of the gross misapplication of language, of which the noble author has been guilty, in speaking of the apprehended competition of the Irish manufacturers as 'a violation of the *freedom of trade*!' The whole

of his argument, indeed, is exactly of a piece with the exploded reasonings of those who formerly contended *against* this very freedom. It is a pleading in behalf of the *monopoly* of the English manufacturers; and seems to us to lead much more naturally to a system of restraining and prohibitory laws against importation from Ireland, than to any alteration in the practice of borrowing in this country for the service of the sister kingdom. If the goods of which we stand in need can be furnished cheaper from Ireland than at home, it is our wisest policy to let Ireland furnish them; and if our manufacturers are tempted to emigrate to that country by the prospect of greater profits, it is for our interest that they should be allowed to emigrate. We are not of opinion, indeed, that any such consequences are likely to follow from the arrangements which have excited Lord Lauderdale's apprehensions: but if they were to follow, we conceive it to be quite evident that they must be considered as proofs of the freedom of trade, and not as instances of its violation.

ART. III. *Isabel, from the Spanish of Garcilaso de la Vega, with other Poems and translations from the Greek, Italian, &c. &c.*
By Robert Walpole, Esq. Cambridge, 1805.

MR Walpole, as we collect from his preface and the substance of his book, having determined to learn the Spanish and Italian languages, judiciously provided himself with a copy of the *Parnaso Español*, and the London selections of Italian poetry. Esteeming it the best way of mastering those tongues, he immediately began to translate with the assistance of a dictionary; and, being sufficiently pleased with the productions of his pen, he has since committed them to the press. In the title-page is a motto from Tasso, 'Nè leggano i severi i detti nostri.' We are in doubt, whether the author meant by these words to deprecate the severity of criticism, or to warn those, whose delicacy might be easily offended, that his poetry might not be found congenial to their notions of morality. As the author professed that these translations were made for the purpose of acquiring a thorough knowledge of the languages, we conceived that they must, at all events, be faithful copies; and, as such, whether executed with more or less skill, they could not fail of raising some interest. But we find that, when he purchased the *Parnaso Español*, he received from the late translators of Anacreon and Camoens, that magic wand which can embellish the simplest productions of ancient writers with rich and voluptuous imagery. Without this assistance, the
volume,

volume, which is very miscellaneous, might perhaps have worn too motley an aspect; but, as it is, the most pleasing uniformity reigns throughout the whole. Greek, Sicilian, Spanish, Italian, French, and German, all appear in the same sparkling uniform, one gay livery of love and pleasure; the same voluptuous smile unbends the brow of the Greek epigrammatist, the Spanish warrior, and the pastoral poet of Zurich. Delighted as we must have been by the perusal of a work, throughout which (to use the author's own expression)

' Gay dreams of future bliss our thoughts employ,
And bathe in deep *delight* the entranced soul,' p. 25.

we could not see, without regret, in this bagnio of delight, the venerable Spaniard shorn of his whiskers, and polished by a pumice-stone, and the ancients attired in the foppery of modern fashions.

Grateful as such effusions may be to the vitiated taste of many readers, we cannot too strongly deprecate the system, upon which a certain sect of versificators have lately proceeded, of using the respectable character of some old poet, whose name is better known than his writings in England, as a safeguard and recommendation for their own productions, which perhaps might have otherwise attracted too feebly the notice and admiration of the public. Two evils arise from this practice;—that much trivial and sometimes impure poetry is more easily circulated, and that the well deserved reputation of ancient writers is materially injured. We are far from intending to assert, that the volume before us is indelicate; but a voluptuous strain breathes throughout the whole of it, which is not warranted by the original poems. We may venture to assert, that not a line in this publication is faithfully translated from the Spanish: if such an one, indeed, could be found, it would stand like a Doric column in the midst of Gothic fretwork. Many of the best writers of Spain served with reputation in her armies: and the character of her old lyric poetry was, like that of her warriors, stately and magnificent; often empty and pompously prolix; sometimes borrowing epigrammatical conceit from the Italians, but never refined and corrupt. A passage from Lupercio Leonardo de Argenfola, addressed to Philip the Second, will shew, that they could sometimes reach the highest strains of poetry.

' O si, quando la trompa horrible diere
Señal en los exercitos, y tienda
La roja cruz el viento en las banderas;
Y de la muerte la vision horrenda
Envuelta en humo y polvo discurriere
Por medio las esquadras y armas fieras

Tu nombre ha de sonar en las primieras
 Voces, que diere la Española gente,
 Pidiendo por tu medio la victoria.

i. e. literally, 'Or whether (when the horrible trumpet shall give the signal to the armies, and the wind distend the red crosses upon the banners, and, wrapt in smoke and dust, the dreadful vision of Death shall hold its course through the proud squadrons and arms) thy name shall sound amongst the first voices which the Spanish nation shall utter, praying, through thy means, for victory.' Such poetry, though it loses its harmony, cannot altogether lose its energy, in a prose translation. We should rejoice to see the best specimens of Spanish verse transplanted into our language by a skilful hand, which would carefully preserve their peculiarities, without ingrafting on them foreign fancies, or fashioning them after the style of any new school of English poets.

Milton has somewhere observed, that he never could delight in making 'whole translations;' and indeed (though a good version of a beautiful passage afford great pleasure, because more difficult to execute than original composition, in which the writer follows the bent of his own imagination) the translator of a whole poem is bound in a great measure by the faults of his author. Hence it is too often his fate to receive scanty commendation for the beauties which he may have carefully preserved, (perhaps brought nearer to perfection), and to be stigmatized for defects of the original, which have been more obnoxious to him than to his reader. On this account, several of our most esteemed authors introduced much foreign beauty into their poetry, not by *whole translations*, but by appropriating to themselves select passages, or extracting some precious thought or expression.

'Nare captantes, nec ineleganti,
 Mane quicquid de violis eundo
 Surripit aura.'

Whoever now follows their example, must expect to be assailed by an unmerciful din, as a plagiarist; a hue and cry which has done perhaps more detriment to the taste of the present age, than any expedient that could have been devised to vitiate it. The beauties of Gray were derived from numberless sources. Pope borrowed, with impunity, whole lines from Dryden and Milton, Tasso from Petrarca, Virgil from Ennius; the Italians gleaned from each other, and the Spaniards from them, with no sparing hand. The chorus, which is perhaps most beautiful in Tasso's *Aminta*, 'O bella età de l'oro,' is for the most part altered from the *Vendemiatore* of Tanfillo, a licentious poem, which its author in his graver years attempted to suppress. But a writer of the present day dares not, except in the avowed character of a translator,

lator, attempt to perfect the expression of any idea, which has been barely thrown out by another. His attention must therefore be directed to novelty, rather than excellence; and his productions are more likely to be extravagant, than chaste and classical.

A new school of poets has however lately arisen, who have recourse to a happy expedient, to enable them (sacrificing the boast of originality) to make use of the ideas of foreign writers, without submitting to the difficult duties of a translator, who is bound to preserve the thoughts and expressions of his prototype unmixed, and to attend even to his costume. They make choice of some author who has been little read in England; and, borrowing some ideas (perhaps not the leading thought) from his poem, they compress, enlarge, alter, and embellish with amatory expressions, according to their own fancy, preserving little more than the name of their original in the title-page. Mr Walpole has perhaps surpassed all the writers of this sect in the art of alteration. *Diruit, ædificat, mutat quadrata rotundis*: with him, an elegy is transformed into a sonnet, a pastoral into an ode, and a serious sonnet into a love-song. We imagine that, with equal facility, he would translate the Iliad into a tragedy, with an ode or two of Pindar for prologue and epilogue.

The volume before us commences with a lyric poem entitled *Isabel*, which is prefaced by the following words:

‘The reader is here presented with a translation of *the poem* of Garcilaso de la Vega, written on the death of Isabel de Freyre, the wife of Don Antonio de Fonseca. It is to be found in the *Parnaso Español*, vol. II. in *the egloga*, in which Salicio and Nemoroso are introduced as the speakers. By the former, Garcilaso himself is represented; by the latter, the husband of Isabel.’

The translator, having probably never seen the works of Garcilaso, could not be expected to know that these were not the only lines which he wrote in honour of Isabel de Freyre; nor the eclogue, from which they are extracted, the only one in which Salicio and Nemoroso are interlocutors; but he might have seen, in that very volume of the *Parnaso*, that it is by no means certain that Nemoroso represented the husband of Isabel. It has been supposed that the famous poet Boscan, the friend and companion of Garcilaso, was intended, and that the word was formed from the similarity of his name to *bosque*, a grove.

In the first book of Boscan's poems (edit. 1576, fol. 40.), we find some verses, which are probably addressed to her.

‘Señora donña Ysabel,
Tan cruel
Es la vida que consiento,
Que me mata mi tormento,’ &c.

The idea that Nemoroso meant her husband, originated with Herrera; but Don Luis Zapata, in his *Miscellanea*, positively contradicts it, and states that Fonseca had no habits of intimacy with Garcilaso, whose friend Boscan had been the *servidor* of Don'a Isabel before her marriage.

We shall now compare the first lines of Mr Walpole's poem with the original passage in Garcilaso, of which we shall add a close translation, for the benefit of such of our readers as may not be masters of the Spanish language.

Corrientes aguas, puras, cristalinas;
Arboles, que os estais mirando en ellas;
Verde prado de fresca sombra lleno;
Aves, que aqui sembrais vuestras querellas;
Yedra, que por los arboles camina
Torciendo el paso por su verde feno;
Yo me vi tan ajeno
Del grave mal que siento,
Que de puro contento
Con vuestra soledad me recreaba;
Donde con dulce sueño reposaba,
O con el pensamiento discurria,
Por donde no hallaba
Sino memorias llenas de alegria. '

i. e. *literally*, 'Running, pure, crystalline waters! Trees, that behold yourselves reflected in them! Green meadows, full of fresh shade! Birds, that here diffuse your lamentations! Ivy, that climbest the trees, bending thy steps along their green bosom! Once I saw myself so foreign to the heavy ills which now I feel, that from pure contentment I recreated myself in your solitude; where I reposed with pleasant slumbers, or discoursed with my thoughts, from which I gathered nothing but recollections full of cheerfulness. '

We shall mark by italics the words in Mr Walpole's translation which have no warrant in the original; and it will appear how few of Garcilaso's thoughts are expressed in the English stanzas.

'Ye crystal floods, *that lave*
With gently murmuring wave
These banks, where spring its earliest sweets exhales!
Ye lofty shades, that show
Within the stream below
Your broad boughs bending to the whispering gales!
'Ye verdant plains and groves,
That Melancholy loves,
Where pours the bird of night her softest lays;
Ah, scenes that ever dear
To memory still appear,
For still they paint the joys of former days! '

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The four first verses of Garcilaso's stanza are here stretched into nine of Mr Walpole's lines, and the remaining three stand in lieu of all the rest of it: yet, perhaps, there are few passages in the volume more faithfully translated.

In the last stanza of this poem we observe a curious blunder, which has arisen from the short acquaintance which the writer seems to have had with the Italian and Spanish poets. After saying, that the soul of Isabel treads the *empyrean sky*, which is not mentioned in the Spanish, he adds—

‘ There, in the realms of light
With purest ether bright,
To sounds of bliss our raptur'd lyres shall wake ;
While, crown'd with blushing flow'rs
From never-fading bow'rs,

Through the third heaven our onward march we take. ’

He might as justly have said, that a person standing on the roof of a high building was going up stairs through the third story. If he had been acquainted with the system of philosophy that was adopted by the Italian and Spanish writers of the 15th century, and had read a little more of their poetry, he would have known, that the *empireo cielo* was the highest seat above all the other heavens, and that the third heaven was that of Venus. On this account, it is so frequently mentioned as the abode of departed beauty, that Mr Walpole's quotation of a line from Ariosto, in which the words *terzo cielo* occur, was very superfluous. We are informed in the note, that the author has discovered the passage ‘ since translating the above. ’ Had he looked into Dante or Petrarca, his discoveries might have been carried a more profitable length.

In p. 16. we find a sonnet translated from Garcilaso. The eight first lines are compressed into four; then follows a voluptuous description, of which we can discover nothing in the Spanish.

‘ Now heaves that bosom with luxuriance high ;
Now beam the thrilling glances from thine eye. ’

The next lines in Garcilaso are beautiful; but the close has perhaps too much conceit: they are, however, completely altered in the English.

‘ Coyed de vuestra alegre primavera
El dulce fruto, antes que el tempo ayrado
Cubra de nieve la hermosa cumbre.
Marchitarà la rosa el viento clado.
Todo lo mudará la edad ligera
Por no hacer mudanza en su costumbre. ’

i. e. literally, ‘ Gather the sweet fruit of your cheerful spring-time, before the stormy season cover the beauteous brow with

snow. The frosty wind will wither the rose. Fickle Time will change every thing, to avoid changing his own custom.'

' O heed the moment ! pluck the flower of love,

Or ere it fade and wither in the blast !

Mark through the glass of Time the swift sands move,

And age o'er all its darkening mantle cast.

And when that eye is dimm'd, and wintry snow

Whitens those clustering locks, Ah ! then no more

Will youths to thee their sighs of passion pour,

Nor e'er a second spring thy faded beauty know.'

The author might have published these lines as his own, without much fear of being taxed with borrowing from the Spanish. But, besides the departure from the sense, there is a more striking deviation from the metre and structure of the sonnet. *The legitimate sonnet is a poem of fourteen equal lines of a certain length, divided by the sense, as well as the rhyme, into two quatrains and two tercets.* Some of our old sonneteers introduced, from the worst Italian writers, a spurious form, in which a detached quatrain, followed by a couplet, was substituted for the tercets. Encouraged by this example, some of our later writers have presented the public (under the name of a sonnet) with three elegiac stanzas, concluded by a solitary couplet. Mr Walpole, commiserating the forlorn situation of this unhappy couplet, has admitted it into the centre of the fabric. In some of his sonnets, it takes precedence of the third stanza; in that which we have quoted, it appears immediately after the first; and the whole is ingeniously wound up by an alexandrine. As Mr Walpole has transformed sonnets into songs, and elegies into sonnets, we ought not to be surpris'd at his disregarding their peculiarities. Indeed, the structure and excellence of this difficult species of composition is not sufficiently understood and valued in this country, to reward a writer for the labour he must bestow on it. Men are naturally inclined to depreciate and ridicule what they have never studied, unless it be of known utility; and many (who ignorantly imagine that all Italian and Spanish sonnets are a monotonous repetition of amatory trifles, because some are certainly so) sneer at the very name of a sonnet, as if it were the most insignificant of compositions. Menzini, however, in his *Art of Poetry*, observes, that 'the sonnet is the touchstone of great geniuses; a test, which many a poet of considerable eminence must decline, or the base alloy of his verse will be detected. The inaccuracies and faults of a longer work may escape the reader; but, in a sonnet, the smallest flaw casts disgrace upon the whole: the ear is offended, if one rhyme be awkwardly introduced, if the whole do not flow with equal connexion and with harmony, or if the close do not depend neatly

neatly upon the subject proposed.' This species of composition, which an excellent writer hath called 'the most exquisite jewel of the Muses,' whether originally invented by the Sicilians or Provenceaux, was brought to perfection by the Italians; and from them we unquestionably received it. With us, however, it has never been completely naturalized. Milton and Gray, who have cultivated it with most success, both drunk from the sweet streams of Italy, where a single sonnet can give immortality to its author, while the longer poems of his contemporaries are buried in oblivion. But many English poets of later date, seem to have wholly lost sight of its peculiar structure; and the spurious and paltry compositions, which, under that title, have been lavished on the public, have tended greatly to debase the character of that branch of poetry. Its rigid laws cannot be better explained than by the words of Boileau:

' Un jour ce Dieu bizarre,
Voulant pousser à bout tous les rimeurs François,
Inventa du sonnet les rigoureuses lois;
Voulut, qu'en deux quatrains de mesure pareille
La rime avec deux sens frappât huit fois l'oreille;
Et qu'ensuite six vers artistement rangés
Fussent en deux tercets par le sens partagés.
Surtout de ce poëme il bannit la licence,
Lui-même en mesura le nombre et la cadence,
Defendit qu'un vers foible y pût jamais entrer,
Ni qu'un mot déjà mis osât s'y remonter.
Du reste il permit d'une beauté supreme;
Un sonnet sans défaut vaut seul un long poëme.'

The subject should, according to the strictest division, be set forth in the first, and illustrated in the second quatrain; confirmed by the first tercet, and concluded in the last: and much of the excellence of a sonnet will depend upon the beauty of its close, which, without being epigrammatical, should artfully wind up the subject with some striking thought or expression. Such are the laws from which the most esteemed writers have never entirely departed; nor can a sonnet be deemed faultless, which does not in a great degree adhere to them. Gray has observed them scrupulously. Petrarca, Casa, Bembo, and other distinguished poets, often bestowed the labour of months upon one sonnet; and in later years, Lazzarini and Ghedino were not less industrious. It is said of Bembo, that he had a desk with forty divisions, through which his sonnets passed in succession before they were published; and at each transition they received some correction. Our modern innovators should weigh accurately the grounds of their alterations, before they discard the regulations established by those

those who most deeply considered their object. The Italians in general possess, perhaps, a nicer ear for poetry, as well as for music, than we do. We have seen it somewhere asserted, that in English sonnets, the established form should not be preserved, because the poverty of our language in rhymes rendered it too difficult, and that it had no peculiar beauty to overrule this objection. To us it appears, that whoever does not perceive the beauty of that structure and division which has been invariably preserved by the Italian, Spanish, Portuguese, and French writers, must have a very defective ear for poetical harmony.

— 'Non val quella sì magra scusa
 Di dir, che troppo rigida è la legge,
 Che in quattordici versi sta rinchiusa;
 E che mal si sostiene e mal si regge
 Per scarcezza di rime.'

But we deny that the English language is poorer in rhymes than that of Spain or of Italy. The number of our monosyllables, our final consonants, and the position of our accents, naturally lead us to single rhymes, whilst the Spaniards and Italians almost necessarily use the double; but the correspondence of terminations in English is by no means less suitable to poetical purposes. Many words, indeed, of great value in rhymed verse, we have suffered to grow obsolete, and several of them deserve to be revived. Writers of the present day should rather restore the currency of sterling old terms, than disfigure the language by new coinage. The exclusive veneration with which an Englishman looks to the works of Milton and Shakespear, has induced him to reject many excellent words that are not sanctioned by their authority; and the imperfection of Johnson's dictionary, to which all resort, has in a manner discarded them.

Returning from this digression, which has been caused by the whimsical form of Mr Walpole's sonnets, we find in p. 19. of the volume before us, a sonnet from the Spanish of Figueroa, which makes its appearance in the shape of four lyric stanzas. The expressions and the metre have nearly equal resemblance to the original. Figueroa writes '*Viene la noche,*' *the night comes*, which is thus translated:

'The pearly car of eve
 In silver radiance rides on high.'

The translator, indeed, seems greatly enamoured of the sun and moon. In the concluding stanza, '*El sol descubre su rostro,*' *the sun discovers his face*, is rendered,

'The golden morn appears,
 And blushes in the ethereal plain.'

The original, consisting of fourteen long lines, and the English of sixteen short ones, of which four are occupied by golden blushes

blushes and pearly couches, it may be readily conceived, that the substance of the sonnet is altogether omitted. Had Francisco de Figueroa written thus, he would never have acquired the surname of *El divino*, which he bore, as well as Fernando de Herrera.

In page 14. we meet with a translation from Gessner. The characteristic mark of his poetry, and indeed of all his works, is simplicity; but even the purest breeze from the pastures of Switzerland is polluted by the voluptuous refinement of his translator. The sixth stanza is addressed to a zephyr.

‘ Da flattert um ihr weiches bett,
Und weckt das schönste kind;
Mit sanftem spiel auf ihrer brust,
Und ihrer süßen mund. ’

i. e. Then flutter round her soft bed, and wake the lovely maid;
playing gently on her breast, and her sweet mouth.’ These lines are simple and beautiful; but they have been thus vitiated by the translator:

‘ Pant o’er her lip and cheek’s bright hues,
And heave upon her heaving breast. ’

We think the original composer of loose and voluptuous poetry deserves some censure; but he who thus stains the innocent writings of another, is still more reprehensible.

This volume contains several pieces said to be translated from the Greek Anthology. In every line of them, we meet with ‘golden locks,’ or ‘eyes of liquid blue;’ ‘vermeil cheeks,’ and ‘rising hills of snow;’ ‘ardent wishes, circling arms,’ and ‘impassioned sighs.’ Mr Walpole informs us that he should have printed the Greek lines, if he had had time to examine again the Anthologia. We believe indeed, that if the author has forgotten which verses he had intended to translate, the originals could not be again discovered without a long and difficult search.

The volume closes with six Alcaic stanzas, which are said to be translated from Petrarca’s ‘Chiare, fresche, e dolci acque;’ and indeed the two last lines, though borrowed from Horace, remind us of one in that canzone. If the author had seen a very elegant translation of this poem, in Glyconic verse, by M. Antonio Flaminio, he would probably not have published these stanzas, which are the only Latin poetry in the volume. To our surprise we find, at the end, a postscript in Latin. Mr Walpole’s female readers will probably imagine that it contains some gross indelicacy, which it was thought fit to veil from their eyes; but we can assure them that the author merely laments therein the depravity of human nature, and informs us, mysteriously, that he has undertaken some work of greater moment, ‘*quod e re literaria magis erit;*’ and that he has suppressed certain Greek poems (with which

which he had thought of favouring the public), because nothing ought to be submitted to their most fastidious judgment which hath not been turned frequently on the anvil, and wrought with the greatest industry. The poems we have reviewed were probably, in his estimation, sufficiently hammered, filed and polished. We are ignorant whether the author clothed these elegant sentences in a dead language, to give a specimen of his Latin prose, or because he wished them to be mysterious and *φαινῶντα συνειροίειν* only. Their obscure and unclassical construction induces us to believe the latter was his intention.

We cannot close this article without observing, that from the general facility and harmony of his verse, Mr Walpole appears to possess talents, which deserve to be better cultivated and better directed. If he will translate faithfully, or follow entirely his own imagination; if he will believe that Waller and Prior are better models than Mr Little, for light lyric poetry; he will easily attain that respectable literary character, which we have every reason to think his abilities entitle him to challenge. Though we have expressed our disapprobation of the system pursued in this publication, we can assure him that we are very far from wishing to place his talents in an unfavourable light; but are most desirous of redeeming them from the vicious school into which he seems to be initiated. We wish to see him stand upon his own ground; and had rather he would move wherever his own genius may conduct him, than become the humble sectary of Mr Little. We will quote some stanzas translated from Kleist, which will prove that Mr Walpole can write with elegance.

‘ O thou, who through the silent air
Dost sail on fragrant pinion by;
Say, Zephyr, hast thou seen my fair?
And dost thou waft to me her sigh?

And ye, clear streams, as on ye flow,
From me the lovely maiden greet;
And murmuring whisper all my woe,
Whene’er your waters kiss her feet.

O say that since she sped her flight
From these sad scenes, so gay before,
Nature is robed in saddest night,
And wears her wonted charms no more.

Oh where does she delight to stray?
What plains with her loved presence smile?
Where does the dance her limbs display?
Where does her voice the hours beguile?’

ART. IV. *An Essay on Naval Tactics, Systematical and Historical. With Explanatory Plates. In Four Parts* By John Clerk, Esq. of Eldin, Fellow of the Society of Scottish Antiquaries, and of the Royal Society of Edinburgh. Second Edition. Edinburgh, Constable & Co. London, Longman & Rees. 4to. 1804.

A FEW copies of the first part of this valuable Essay, were printed and distributed among the author's friends, in the beginning of the year 1782. It was reprinted and published in 1790; the second, third, and fourth parts were added in 1797: and the work is now republished entire, with a preface, explaining the origin of our author's discoveries in Naval Tactics. As it would be impossible for the reader, from any detached quotation, and unassisted by the plates, to comprehend the whole detail of a system which is explained with mathematical precision, in a series of demonstrations, we will endeavour to give an accurate analysis of the principles upon which it is founded, and of the chief illustrations by which it is developed and explained.

In an introduction written in October 1781, he begins with observing, that during the greater part of the American war, and during the whole of the two preceding wars, British sailors, in the rencounter of single ships, or of small squadrons, never failed to exhibit the most distinguished seamanship, intrepidity, and perseverance, attended with the most uninterrupted success: yet wherever large fleets, of ten, twenty, or thirty ships were assembled and *formed in a line of battle*, nothing memorable had ever been achieved, and not a single ship had been lost or won. The defeat of Conflans and other fortunate occurrences during the same war, form no exception to this general observation; as, on most of these occasions, the English possessed a decisive superiority in numbers; and in the defeat of Conflans, the French, though nearly of equal force, betrayed the utmost irresolution, and fairly ran away, without even attempting to sustain an engagement. From the amazing exertions and uniform success of our seamen in lesser conflicts, it cannot be ascribed to any diminution, but to the improper direction of their characteristical intrepidity, that, during the whole of that war, our fleets 'were invariably baffled, nay were worsted, without having ever lost a single ship, or almost a man.' As little can it be attributed to the superior construction or sailing of the enemy's vessels, when we find that they were so frequently overtaken and captured in single engagements. Mr Clerk, therefore, concludes that the French must have adopted a new system of tactics which we had not then discovered; and that the method hitherto pursued on our part, since

since it was always unsuccessful, must have been radically wrong.

The author proceeds, in the first part of his work, to a series of demonstrations on the mode of attack from windward, of which, for the reasons already assigned, it is impossible to give any more than the general result. A single vessel to windward in pursuit of another to leeward, will never bear down, endwise, in a direct line, on the broadside of the other; because she is then exposed to be raked from end to end by the fire of the enemy, and to be disabled from pursuit. She will either bear down astern of the other, and continue the pursuit in a parallel line, till she get alongside; or, having shot ahead, she will bear down athwart the other, to intercept her in her course. But a *fleet* to windward has invariably borne down in a perpendicular, or at least in a slanting line on another to leeward, each ship in a line of battle abreast of the other, till they brought up, within a proper distance, for a close and general engagement from van to rear. A fleet to leeward, formed in a line of battle ahead of each other, and desirous to avoid a general engagement, had therefore full leisure to disable the other during its approach. And when the latter had assumed a situation for close encounter, the former might bear away at intervals, while enveloped with smoke; or, by making more sail, might shoot ahead, and pour its whole fire into the opposite van, as it passed and wore in succession, to form a new line to leeward, on the opposite tack, where, if the enemy were not already disabled, the same manœuvre might be repeated with the same success. Some idea may be formed of the effect of a raking fire, from the supposition of a column of infantry exposed to the fire of a battery through the whole line. But a ship is infinitely more disabled by the damage sustained in a few shrouds or principal stays, in a yard or topmast, than by the loss of men; and the area which the hull and rigging together present to the shot, appears from our author's calculations to be twenty times larger than the area formed by the decks alone where the men are exposed.

If, then, says our author in concluding this part of his demonstrations, 'after a proper examination of the late sea engagements, or rencounters, it shall be found, that our enemy, the French, have never once shown a willingness to risk the making of the attack, but invariably have made choice of, and earnestly courted a leeward position: If, invariably, when extended in line of battle, in that position they have disabled the British fleets in coming down to the attack: If, invariably, upon seeing the British fleet disabled, they have made sail, and demolished the van in passing: If, invariably, upon feeling the effect of the British fire, they have withdrawn at pleasure, either a part, or the whole of their fleet, and have formed a new line of

of battle to leeward: If the French, repeatedly, have done this upon every occasion: And, on the other hand, if it shall be found that the British, from an irresistible desire of making the attack, as constantly and uniformly have courted the windward position: If, uniformly and repeatedly, they have had their ships so disabled and separated, by making the attack, that they have not once been able to bring them to close with, to follow up, or even to detain one ship of the enemy for a moment;—Shall we not have reason to believe, that the French have adopted, and put in execution, some system which the British either have not discovered, or have not yet profited by the discovery (of)?' p. 39.

That such was the new system adopted by the French, to preserve their own ships, while they disabled ours, and such the mode of attack to which the English uniformly adhered, is illustrated by the details of a variety of naval engagements, from Admiral Byng's in the Mediterranean, 1756, to Admiral Greaves's rencounter off the Chesapeake, 5th September 1781. In Byng's unfortunate engagement, the British having weathered the French fleet, edged down in a slanting or oblique line to bring the latter to close action from van to rear. The headmost ships suffered a raking fire, and received three broadsides, before they could reach their stations to return a shot. The sixth ship in the line was disabled by the loss of a topmast; and from the interruption which she occasioned to the line, the van was separated from the centre and rear. The van of the French fleet bore away at intervals, amidst the mistaken shouts of our seamen, as soon as it felt the effects of our fire. The centre and rear, by making more sail, poured their whole fire with impunity into our five headmost ships, as each vessel ranged along our van; and as they bore away in succession, they formed a new line three miles to leeward; while our van which had sustained the whole action, was too much disabled for the fleet to renew such a disadvantageous attack. In Pocock's engagement in the East Indies, two years afterwards, a similar mode of attack, and the same system of defence were employed upon each side, and with the same success. So early had the French adopted a defensive plan, which preserved their own fleet, while it disabled ours, and which, in Byng's engagement, prevented the relief of Fort St Philip.

Admiral Byron's engagement off Grenada, on the 6th of July 1779, is described as similar to Byng's, in almost every respect. Our fleet bore down from windward, in the same oblique line; but as the enemy kept bearing away, we were unable either to bring their rear into action, or to produce a close engagement in the van. Our headmost ships were either disabled in making the attack, as they received the whole fire of the enemy's line, as each ship of the latter passed and wore in succession, in order to
form

form to leeward upon the opposite tack. The French adhered so closely to this defensive system, that, to avoid all danger of a general engagement, they forbore even to intercept our disabled ships which had necessarily fallen to leeward; and their caution was rewarded with the capture of Grenada.

Admiral Arbuthnot's engagement off the Chesapeake, exhibits a repetition of the same manœuvres, with this remarkable addition, that the French fleet, which had the weather gage, being apprehensive of an engagement in that situation, run down and formed to leeward of the British line. Accordingly, our headmost ships were so much disabled in bearing down to engage, that when the enemy wore as usual, and formed again to leeward, our fleet was unable to renew the attack. In Admiral Greaves's engagement off the Chesapeake, 5th September 1781, the same manœuvre was practised with equal success. While the enemy's van bore away, their centre bore up in passing, not only to protect their own van, but to pour their whole fire successively into ours.

The last instance of an unsuccessful attack from windward, which our author has produced, is Lord Rodney's engagement off Martinico, on the 17th of April 1780. His Lordship's first design was to attack the rear of the enemy with his whole force. The French Admiral, however, discovering the meaning of the signal, wore, and formed on the opposite tack; and the manœuvre, though it was still practicable, was exchanged for a general attack upon the whole line. Notwithstanding the personal gallantry of Lord Rodney, and the example of close action given by the Sandwich, the French fleet bore alternately away, and escaped; while the English, from the damage sustained in the hulk and rigging, were unable to continue the pursuit that night.

Mr Clerk next proceeds to shew, that wherever the French, in opposition to their usual practice, had kept to windward, as if aware of the peculiar danger of their situation, they were careful never to make the attack themselves. Their anxiety to preserve a secure distance, is illustrated by Rodney's two engagements on the 15th and 19th of May 1780, to the windward of Martinico; by Sir Samuel Hood's engagement on the 17th of April 1781, off Martinico; and by Admiral Keppel's in 1778, off Ushant; in each of which, a smart cannonade was maintained, while the two adverse fleets passed each other upon opposite tacks. In the last of these engagements, the French fleet, as in the subsequent engagement with Arbuthnot, off the Chesapeake, run down and formed to leeward, after having passed the fire of the British line.

Such was our naval situation in the beginning of the year 1782, when

when the first part of this work appeared. During the whole war, our fleets had invariably been baffled, disabled, and worsted, in fact, in every general engagement, *without the loss of a single ship on either side, or almost of a man*. Our admirals adhered invariably to the established mode of attack, and endeavoured to obtain a windward position before they began to engage. Each ship steered directly upon her opponent in the adverse line, and brought up, in order to produce a general engagement from van to rear. In this situation, our admirals could not avail themselves of the superior skill, perseverance, and spirit of our seamen; nor, in bearing down, could our ships retaliate upon the enemy with a single shot. The French, relying upon our want of penetration to discover, or of skill to counteract, this new system of defence, never failed to accomplish the object of their expedition, and to disable our ships, while they preserved their own. Dispirited by the failure of our arms in the American war, we beheld ourselves uniformly baffled in our own element; and we began to apprehend a decay of spirit in our officers and seamen, when we reflected upon the victories obtained at Messina and La Hogue, upon our obstinate battles with the Dutch in the preceding century, and on the glorious annals of Queen Elizabeth's reign.

Mr Clerk's merit would have been sufficiently conspicuous, had he merely discovered this concealed system of French tactics, which, during three successive wars, had escaped the penetration, or at least had eluded the skill of our naval commanders. But he has also taught us how to counteract this system, and to bring the enemy, in every situation, to a close engagement, in which the superiority of our seamen might be successfully exerted. Instead of the former erroneous mode of attack, the system which he has substituted, possesses this peculiar merit, that it cannot avail our enemies even when divulged. That innate spirit and habitual skill, which have rendered our seamen superior in every close encounter, must first be communicated to our enemies, before the two modes of attack which he proposes, and which have been successfully adopted, from windward and from leeward, can be employed against us even upon equal terms. We will proceed to explain concisely the principles of each mode of attack, without attempting to follow the minute and accurate demonstrations which the author has given, of the various situations to which they may extend.

The mode of attack proposed, whether from windward or from leeward, is founded upon the same principle which a skilful general adopts in engagements by land; that is, to exert the chief force against the weakest or most vulnerable part of the opposite line. The impossibility of carrying the whole fleet by a general attack, has been sufficiently proved. Instead, therefore, of bearing &c.

really down to stop the van, of which the result has been generally unsuccessful, and always indecisive, our author demonstrates that a fleet to windward, arranged in three divisions as the service may require, should continue the pursuit, like a single ship, in nearly a parallel line of approach; and should confine the attack to as many vessels as it can reach and cut off in the centre or rear. Admitting even the superiority of the enemy's sailing, the swiftest vessels to windward will necessarily outfail and intercept the heaviest in the fleet to leeward, which last must either abandon its rear, or return to hazard a general and close engagement, which it has endeavoured to avoid. But, in whatsoever manner the enemy shall attempt to return, whether the whole fleet shall double round in succession, or each vessel shall tack or wear in the line, the time and course required for the execution of the movement, will increase the distance between the van and centre, and that part of the line which is intersected and attacked. If they tack or wear in the line, the ships are exposed to a raking fire, while the windward divisions of the opposite fleet are ready to interpose, and to prevent their junction with the rear. If, anticipating the intended attack upon their rear, as in Rodney's first engagement off Martinico, they would endeavour to avoid it by wearing round, in order to pass on the opposite tack, the fleet to windward may either bear down athwart their course, and bring the headmost ships to a close action, or may renew the attack with the same success against their former van, which is now their rear. Or, if they should endeavour to escape before the wind, their retreat must soon degenerate into an absolute flight, in which the slowest vessels must always be overtaken by the fleet in pursuit.

The mode of attack from leeward occupies the second part of the work. As the course of a fleet in working to windward is in angular lines, if the advantages upon each side were equal, the distance between two fleets working to windward would continue always the same. But the least disaster to the masts or rigging, even of a single vessel, retards the progress of a fleet to windward, lest that vessel should fall to leeward into the hands of the enemy. Every alteration in the wind enables the fleet to leeward to weather the other; and, as these accidents are unavoidable in cruising, Mr Clerk concludes, that, in the course of a few days, a fleet to leeward must fetch some part at least of the opposite line. Were they to meet on the same tack, the engagement might continue while they held the same course; but the fleet to windward, when desirous to avoid an engagement, has invariably passed the other on an opposite tack. Our fleet, instead of continuing its former course, invariably bore away, when to leeward, in order to engage, as it ranged along the opposite line; but the two fleets, as
their

their courses were different, were necessarily separated after a short cannonade. As the two fleets, in Keppel's engagement off Ushant, passed each other at the rate of five miles an hour, it appears, that each ship was engaged for no more than a quarter of a minute with each opponent, and was exposed but for six minutes and a half to the whole fire of the adverse fleet.

'Let any one imagine,' says Mr Clerk in his observations upon this engagement, 'a rencounter of horsemen, where the parties, on coming to the ground appointed, had pushed their horses at full speed, exchanging a few pistol shot as they passed one another in opposite directions, at the distance of forty or fifty yards, and then some idea may be formed of the effect of rencounters, where adverse fleets are brought to pass each other on contrary tacks.' He concludes, that 'by such investigations only can it be explained, how two adverse fleets, amounting to thirty ships of the line each, carrying above 36,000 men, after having been brought in opposition of battle, and sustaining a furious cannonade from 4000 guns, besides musquetry, how, I say, they have been brought to be separated again without effect, without the smallest apparent decision, that is, without the loss of a ship on either side, and sometimes without the loss of a man, although the rencounter has often been said to have been within pistol shot.' p. 108.

Our author's mode of attack from leeward, seems to have been first suggested by the examination of this unsuccessful engagement. If our fleet, instead of bearing away when it reached the enemy's line, had continued close to the wind, in its former course, the opposite line must have been *cut in twain*, and intersected by ours; and either the rear, when thus separated and obstructed in its course, must have been abandoned by the van, or a close and general engagement must have ensued. Mr Clerk demonstrates, by a variety of examples, that whether the attack be directed against the centre or rear of the enemy's fleet, whether it be made by the van or centre of the fleet to leeward, the portion of the line which is then intersected, and cut off from the rest, must be forced to leeward, and taken or destroyed. When the attack is made by the centre, the headmost ships bear away as usual, and engage to leeward; those of the centre pierce the opposite line, and stretching to windward, place the enemy between two fires; the rear remains interposed to obstruct the course of the enemy's rear, or the return of their van. When the line is thus intersected and broken, the van and rear present two distinct objects of attack; but, as these objects are not both to be accomplished, the attack of the rear, which is already far advanced, and where the success is certain, is shewn to be far preferable to that of the van, which requires a long pursuit.

The trials of Mathews, Byng, Keppel, and Palliser, had been
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instituted

instituted to punish the authors, if not to discover the causes, of our miscarriages by sea. During the whole of these trials, there was no idea, nor indeed the most distant surmise entertained, that the established modes of attack were in themselves injudicious, and incapable of being made effectual. Our officers were eminently distinguished by their gallantry and seamanship; but they had hitherto bestowed no adequate degree of attention upon naval tactics. The truth undoubtedly is, that the first idea of cutting the line originated with Mr Clerk. The outlines of his mode of attack from leeward are contained in his observations upon Keppel's engagement, which were written soon after the 27th of July 1778, and communicated to a few friends.

'The investigation,' he observes, 'of many things in this engagement, which to me seemed to be palpable blunders, and most important, roused a desire which could not be resisted, and hurried me on to put in writing a number of strictures, accompanied with drawings and plans, containing sketches of what might have been attempted in this new kind of rencounter of fleets upon contrary tacks, more particularly applicable to this attack, as it was from the leeward, which, after communicating to friends, naval officers, and others in my neighbourhood, copies were sent to London.'

'In January 1780, when I was in London, being fully impressed with the importance of the naval ideas which long had been working in my imagination, and in consequence of the strictures on Lord Keppel's engagement sent the year before, some appointments, for the purpose of farther communication on this subject, were made by my friends. Among the first of these, was an appointment with Mr Richard Atkinson, the particular friend of Sir George Rodney, who was then in London, and was immediately to set out to take the command of the fleet in the West Indies. At this meeting, the whole of my acquisitions on the subject of Naval Tactics, for many years back, was discussed. I communicated to Mr Atkinson the theories of attack from both the windward and the leeward; the first as contained in the first part of this Essay; the last as contained in the second part, now published a second time. I particularly explained my doctrine of cutting the enemy's line, &c. as set forth in both first and second parts. I also produced the paper of strictures on Lord Keppel's rencounter of the 27th of July, which contained all my general ideas on the subject of Naval Tactics. All this Mr Atkinson undertook to communicate to Sir George Rodney, which he could have no difficulty in doing, as I left in his custody sketches, made according to my usual method of demonstration, together with the necessary explanations.'

'From the best authority, I have been informed that Lord Rodney himself at all times acknowledged the communication; and having, from the first, approved of my system, declared, even before he left London, that he would strictly adhere to it in fighting the enemy.' Pref. p. vii.

¹ In a subsequent note Mr Clerk informs us,

'That

‘ That the author being in London in January 1780, many discussions were held, at the desire, and in presence of the same friends, as well for improving upon, as for the communicating of, these and other ideas on Naval Tactics, and particularly on one occasion, by appointment with an officer of most distinguished merit: That they were afterwards intended to be inserted in the first edition of this Essay, printed January 1. 1782, as being applicable to the two similar rencounters of Lord Rodney, of the 15th and 19th of May 1780, as well as to this of the 27th of July, where the adverse fleets had passed each other on contrary tacks. But it was afterwards thought proper then to omit them, as it was conceived it might be of prejudice to the other parts of the subject to advance any thing doubtful, no example of cutting an enemy’s line, in an attack from the leeward, before that time, having been given.’ p. 103.

We have long understood that this officer of distinguished merit was the late Sir Charles Douglas, first Captain to Lord Rodney, to whom there can be no doubt that our author’s system and plans of attack had been communicated by the intervention of mutual friends, previous to his departure for the West Indies.* In the engagement off Martinico, April 17th, 1780, it was evidently his first intention to execute our author’s mode of attack from windward, against the rear of the enemy; but when that was exchanged for an attack upon the whole line, his fleet was baffled as usual, and disabled from pursuit.

‘ In his official despatches describing the battle, there is the following remarkable passage: “ At forty-five minutes after six in the morning, I gave notice, by public signal, that my intention was to attack the enemy’s rear with my whole force. ”

‘ This was a language altogether new, either from Admiral Rodney, or any of his predecessors; and as it was the first instance in which a British Admiral had ventured to deviate from the old practice, I could not help immediately ascribing it to the communications I had made to Mr Atkinson, as mentioned before. Elated as I was by the above passage, I was disappointed by another in the same letter. “ At fifty minutes after eleven A. M., I made the signal for every ship to bear down, and steer for her opposite in the enemy’s line, agreeable to the 21st Article of the Additional Fighting Instructions.” Pref. p. ix.

In the subsequent engagements of the 15th and 19th of May, his Lordship still hesitated to execute a new mode of attack; and, during a short and distant cannonade upon opposite tacks, he passed to leeward of the French fleet, which had weathered his van. Upon the 12th of April 1782, the British fleet was still to leeward, and the two fleets were on opposite tacks. The van bore away along the opposite line; and had it been followed by the centre, nothing memorable would have been achieved that day. But the Formidable, the Admiral’s ship in the centre, kept close

to the wind. On perceiving an opening near the centre of the enemy, Rodney broke through at the head of the rear division, and gave the first example of cutting the line. All the consequences predicted by our author immediately ensued. The rear of the French fleet was driven to leeward in the utmost confusion, and torn to pieces by a raking fire. The van and centre, instead of attempting to rejoin their rear, fled in different directions, under a press of sail. The most unbounded praise is undoubtedly due to the gallant Rodney; nor can it detract in the least from his merit, that he was unable to avail himself to the utmost of a mode of attack never practised before. His van, unprepared perhaps to improve the attack, continued to stretch and to tack to windward, leaving an opening through which the rear of the enemy was permitted to escape. Abandoning the proper object of attack, namely, the enemy's rear, the proximity of which would have rendered its destruction unavoidable, he directed the pursuit of his whole fleet against the distant van; and after a chase of five leagues, which continued till sunset, five ships of the line were captured, but the rest were preserved by the approach of night.

From this first execution of our author's system, a new era has been fixed in the history of our naval transactions. During three successive wars, no decisive engagement had almost ever happened, till Rodney, in the execution of our author's system, gave the first example of cutting the enemy's line. Since that period, no engagement has ever proved indecisive; and, with the exception of the battle of the Nile, where the French fleet was at anchor, the same manœuvre has been uniformly practised with the same success. Three days before Lord Howe's distinguished victory on the 1st of June 1794, the signal was twice given (the first, we believe, that was ever given) for the British fleet to leeward to tack in succession, to cut and pass through the opposite line; but from the misconduct of the Cæsar, in neglecting to keep to the wind, the Admiral's ship in the centre, with her two seconds only, cut the line, while the rest of the fleet passed to leeward, having tacked before they were sufficiently advanced. On the 1st of June, the Queen Charlotte, Lord Howe's ship, cut the French fleet in the centre, between the Admiral's ship and her second; and when the two fleets were thus intermixed together, the superiority of our British seamen decided the event of that important day. So sensible were the French of the cause of our victory, that, if we recollect right, the Convention, upon the report of Jean Bon St André, passed a decree of death against that captain who should suffer the line to be cut.

In Lord St Vincent's engagement on the 14th of February 1797,

to which the perpendicular attack, or attack at right angles, (p. 194.), seems to allude, the Spanish fleet, amounting to twenty-seven sail of the line, was discovered at day-break, extending from windward. By carrying a press of sail, his Lordship, with fifteen ships of the line, 'disregarding the regular system,' intersected and cut off the division to windward, of which four were taken, before the remainder of the fleet to leeward could return to their relief.

In Lord Duncan's victory off Camperdown, his Lordship, on discovering the Dutch fleet to leeward, bore down, not in a line of battle abreast, but in two divisions or perpendicular lines; and his attack was directed, not, as formerly, against the enemy's van, but, according to Mr Clerk's system, against the centre and rear. His own division cut the line between the eighth and ninth ships. Onslow's division passed between the fourteenth and fifteenth ships from the van; and while the former, or perhaps the Venerable and her two seconds kept the van at bay, the rest engaged with the centre and rear. By departing from the customary line of battle, and confining the attack, or the chief force, to a portion of the enemy's line, six ships of the van escaped; but the centre and rear, with the exception of a single ship, were overpowered and taken.

As the nature of the work has enabled us to present our readers with few extracts, we shall abstain from any minute observations on the language, which, in general, is plain and perspicuous, and such as is suited to scientific demonstration. The book, however, appears to us to be very awkwardly and unskilfully arranged; and we cannot help regretting, that a system, the whole elements of which are conceived and demonstrated with such admirable simplicity and precision, should have its larger compartments flung together in the careless and irregular manner in which they appear in this volume.

The preface, in which the author dwells with pleasure upon the pursuits and studies of his earlier years, is written, perhaps, with the privilege of a narrative meritorious old age. But it explains a circumstance which has excited the surprise of every reader, namely, how Mr Clerk, a gentleman not bred to the sea, and who never performed even a single voyage, was conducted to discoveries in naval tactics which had escaped the observation of professional men, and to which the nation is so deeply indebted for its naval victories. Upon this last subject, so gratifying and so important to the individual, the author speaks with such a modest, yet conscious sense of his own merit, that we shall transcribe the concluding part of the preface for the satisfaction of the reader.

' Our affairs at sea soon after ' (spring 1782) ' took a different turn ; and I have since had the great satisfaction to see, by the adoption of my system, a decided and permanent superiority given to our fleets. I shall say nothing, in this place, of the brilliant enterprize of Lord Hood for the relief of St Christopher, the account of which arrived about this time. The public joy on this glorious occasion had not subsided, when intelligence came of the memorable and glorious victory gained by Lord Rodney, upon the 12th April 1782 ; a victory far more decisive and important than any which had been gained by our fleets during the last century. The general exultation was excessive ; and I flattered myself I could distinctly perceive, even from the first accounts of the engagement, that the victory was owing to the adoption of my system ; and especially to the manœuvre of cutting the enemy's line in attacking from the leeward.

' Sir George Rodney himself, when he arrived in Britain, made no scruple to acknowledge, that I had suggested the manœuvres by which he had gained the victory of the 12th of April 1782. I may here also be permitted to observe, that although Sir George should be supposed to have had the merit of adopting the manœuvre by which he gained the victory of the 12th April 1782, without any previous suggestion or knowledge of my ideas upon the subject, still it is impossible to deny the efficacy of the method ; and the system on which it proceeded might have remained unknown and unexplained ; and perhaps it would not have been followed in other instances, had not my Essay attracted the notice of the Navy : for the manœuvre was so new and uncommon, and so little agreeable to the former practice, that its adoption by Sir George Rodney, as well as its consequences in that instance, must naturally have been ascribed to accident or good fortune, more especially as Sir George had not, on former occasions, departed from the old rules ; and, in his despatches giving an account of this victory, made no allusion to the manœuvre as a new one, from which he had antecedently expected such effects ; for which reason, though I will not presume to estimate the merit, or put a value on the invention, as of signal use to my country, I will not disguise the satisfaction, and even the consolation I have, in thinking (in which I have been joined by many) that I have been the means of introducing a system of Tactics, which has given to the British Fleets that evident superiority over their enemies, to which the gallantry and skill of the officers and men, and the construction and force of the ships, always entitled them.' Pref. p. xiii. xiv. xv.

In contemplating the beautiful simplicity and unquestioned efficacy of Mr Clerk's system, it is peculiarly pleasing to reflect, that it is constructed upon principles not less congenial than honourable to the character of the nation for whose use it was intended. This system does not consist in any trick or manœuvre, by which courage may be rendered unnecessary, or gallantry decoyed to its destruction ; on the contrary, it proceeds upon the proud presumption, that we shall certainly beat our enemies if we can only get near enough to grapple

grapple with them : and its sole object is to give the valiant an opportunity of fair fighting, to counteract the shifting policy of a wily adversary, and to insure a fair field for the display of courage, discipline, and perseverance in strenuous and decisive contest.

We cannot dismiss this article altogether from our consideration, without suggesting it as a sort of national reproach, that the author of this most magnificent invention—this great engine of national security and glory—should be left without any other reward than that satisfaction and consolation of which he speaks with so modest a triumph in the passage just quoted from his preface. Those feelings, we do not doubt, are enough for him; but they are not enough for the country which has benefited by his exertions. The nation at large is indebted to his genius, and should be proud and forward to acknowledge and to discharge the obligation. His situation in life, we understand, renders him independent of patronage, and his character leads him to disdain any honour that is not offered to his acceptance. It is a public duty, however, to anticipate the claims of public merit, and to confer the highest distinction upon those who have been its most extensive benefactors. It is this spirit of enlightened munificence that is in truth 'the cheap defence of nations,' and ensures the regular production and firm allegiance of all the talents and the virtues by which a people becomes prosperous and renowned. When peerages and pensions are voted with a prudent liberality to every admiral who leads British seamen into battle, is it not humiliating to consider, that the great inventor of *Naval Tactics* has received no tribute of national approbation or applause? While the humblest of his disciples, the most mechanical interpreter of his instructions, is elevated to the highest pinnacle of popularity and fortune, is it not unaccountable that their acknowledged preceptor should be permitted to fall into neglect and oblivion, and to grow old, without being visited by one ray of public acknowledgment or distinction?

ART. V. *The Spirit of Discovery, or, The Conquest of Ocean. A Poem in Five Books: with Notes, Historical and Illustrative.*
By the Reverend William Lisle Bowles. 8vo. pp. 254. Bath, Crutwell. London, Cadell and Davies. 1804.

SOME years ago, Mr Bowles presented the public with a collection of sonnets and short poems. The reception it met with was not unfavourable, especially from that tribe of gentle readers to whom every running stream recalls the memory of joys that are past, and every rustling leaf gives sad anticipation of coming

coming sorrow. Success, partial as it was, inflamed his ambition. No longer satisfied with the humble praise of a sonneteer, he now aspires, 'in a louder and a loftier strain,' to join the *Milions and Cowpers* of his country. But when he indulged the 'hope that one day he might wake the strings to higher utterance,' we cannot help thinking, that he either overrated his own talents, or was not fully aware of the difference between the prettiness and point which may serve to recommend a half-hour's effusion, and the continued display of genius and skill, which is necessary to fix the attention on a long poem. A man may flourish elegantly enough with a fencing foil, who cannot wield the club of Hercules. His former volumes had placed our author in a station neither preeminent nor contemptible; and when he quitted it in search of more extended fame, we suspect it was more from the impulse of self-conceit than of genius. He might still have engaged in a pleasure excursion, or a coasting voyage, with safety; but it was too bold a project to venture, with his frail bark, and small spread of canvas,

E conspectu Siculae telluris in altum.

There is, we conceive, a radical defect in the choice of the subject. It is not enough, in a poem of such length as the present, to have some fine lines, and fine reflections, and pretty passages upon this and the other topic, unless there be at the same time a '*res lecta potenter*,' something to take hold of the feelings, and lead us on from book to book, without languor or impatience. The progress of maritime discovery from the earliest ages to the present times, is a theme that may be well adapted for the pen of the historian, but is lamentably unfit for a poet. The interest which the latter excites is derived, not from rapid and comprehensive sketches, but from minute and circumstantial details, which identify us with the scenes he describes, and make us so well acquainted with his characters, that every change of their fortune affects us with the vivacity of real events. Now, we leave our readers to judge, whether such a thing be practicable where the actors are of every nation, kindred, tongue, and people; and seldom the same for a hundred lines together; and where the time of action extends from the deluge to the present day. It is no answer to this objection to say, that this poem aspires not to the title of Epic; for, let the author class it as he will, he cannot deny that it is employed in narrating a series of events; and if these events be too numerous, too insulated, and too distant from each other in time and place, to coalesce into one whole that may interest and delight, it has evidently failed in a very essential requisite of all good poetry.

But he has not only erred in the choice of his subject; his management of it is also exceptionable. If he was determined to write poetry on this unpoetic theme, it was essential, we conceive, to any degree of success, that he should seize on a few leading facts in the history of naval discovery, and, by a proper infusion of poetical fiction, make up a connected and interesting whole. The title of the poem, indeed, seemed to intimate what the fiction was to be. The *Spirit of Discovery* would be exalted into a poetical personage; and, adorned with all the insignia which a fertile imagination could furnish, would be the prime agent in conducting the plot. But after reading three books without the slightest allusion to any such being, we concluded that the author employed the word *Spirit* in the common prosaic sense of an *active principle*. Towards the close of the 4th book, however, *Discovery* is at last addressed as a person, and told to 'pause,' and 'uplift her gaze,' and 'mark the rich shores of Madagascar.' In the next page, also, we have this expression: 'Look westward, Spirit, now'—and there is a foot-note to say that, by *Spirit*, is here meant the *Spirit of Discovery*, which, as it happens, is a very necessary piece of information. Twice within the next 80 lines, the *Spirit* is again apostrophized, and then dismissed for ever.

It was frittering away the interest of his poem, to touch, as he has done, on a multitude of facts, some of them obscure and unimportant, and others not even remotely connected with the Conquest of Ocean. Thus, at the opening of the 2d book, we are introduced to the sons of Cush, and before we have got any footing on this antiquarian ground, are hurried away to Ammon, whose acquaintance we drop as suddenly, and with as little reluctance. In another place, the author detains us a considerable time in describing the fall of Babylon, the history of the handwriting on the wall, the call of Cyrus, and other topics which have no relation whatever to his subject. We do not wish to draw too tight the bonds of poetical connexion. The poet, we allow, has a right to be indulged in all decent use of episode, digression, and collateral illustration; but, in a poem of such length, we naturally look for something more than a mass of disjointed passages strung together on a common title.

With all his prepossession in favour of his subject, Mr Bowles was not wholly blind to its defects. He confesses that, after he had chosen it, he was greatly at a loss for 'some connecting principle, that might give it a degree of unity and coherence;' and, oppressed with this difficulty, he had even gone so far as to relinquish his design of writing the poem altogether, when Mr Clarke's *History of Navigation* was put into his hands. The reader,

reader, who has looked into the account we gave of that work in our 6th Number, and still more, the reader who has examined the work itself, will wonder what jewel our author could find in that ponderous mass of rubbish, to induce him to alter so prudent a resolution. Nor will his wonder cease, when he hears, that the luminous thought which was to 'furnish an unity of design,' and 'give a more serious cast and character to the whole,'* is simply and literally this, that Noah's Ark is the foundation of our ideas of Navigation, and the true prototype of all vessels that plough the deep, from the cock-boat up to the seventy-four.

To make so unwieldy a machine as the Ark, the connecting principle of a long poem, seemed to us, we confess, at the very outset, a hopeless experiment; and it will appear, in the course of the observations that follow, whether our suspicions were well founded.

As far as the first Book goes, we certainly have enough of Noah and his Ark. The poem opens, after a few introductory lines, with the resting of the Ark on mount Ararat.

'All was one waste of waves that bury'd deep
Earth and her multitudes: The Ark alone,
High on the cloudy van of Ararat
Rest'd: for now the death-commission'd storm
Sinks silent, and the eye of day looks out
Dim thro' the haze, while short successive gleams
Flit o'er the face of Deluge as it shrinks,
Or the transparent rain-drops, falling few,
Distinct and larger glisten. So the Ark
Rests upon Ararat—'

The patriarch, with his family, descends on the dry land, and, after performing his evening sacrifice, retires to rest. His sleep is disturbed by a visit from the Phantom of Destruction, who presents him with a picture of the miseries that await his race. Noah starts from his dream with horror, and, walking out in the morning to shake off its effects, is accosted by the good angel, who carries him to the top of a high mountain.

'Then his brow
The angel touch'd, and clear'd with whisper'd charm
The mortal mist before his eyes:—At once
(As in the sticy mirage, when the seer
From lonely Kilda's western summit sees
A wondrous scene in shadowy vision rise)
The nether world, with seas and shores appear'd
Submitted to his view

He

He saw in ~~mazy~~ longitude devolv'd
 The mighty Brahma-Pooter; to the east
 Tibet and China, and the shining sea
 That sweeps the inlets of Japan, and winds
 Amid the Curile and Aleutian Isles.
 Pale to the north, Siberia's snowy scenes
 Are spread: Jenisca and the freezing Ob
 Appear, and many a forest's shady track,
 Far as the Baltic, and the utmost bounds
 Of Scandinavia.' &c. &c.

Every reader will at once perceive, in this passage, and in the whole intercourse of the Angel and Noah, an unpardonably close imitation of Milton's vision of the Mount, in the 11th Book of *Paradise Lost*. What purpose the author could have in view, in composing this part of his poem, it is not easy to determine. The similarity of the parallel passages in the two poems is so strong, that the reader is irresistibly led to estimate the comparative merit of each, and to adjust the claims of the respective authors. Did Mr Lisle Bowles hope to excel Milton?

Had we read this first book without knowing the title or scope of the work, we should have taken it for the beginning of an epic poem, of which Noah was to be the hero. Unconnected as it is with the rest of the poem, it can be regarded only as an unnatural excrescence.—*Purpureus, late qui splendeat, affuitur pannus*. Its very style and character are different. The boldness of the fiction, the extravagance of the machinery, and the grasping pomposity of the diction, easily distinguish it from the remaining books, which seldom leave the beaten track of historical truth. Of Noah and the ark we hear no more, except by one or two passing allusions, which have not the slightest relation either to what goes before, or to what follows after. Thus, at the end of the 3d book, he introduces an old Brahmin, who, in an ode that has all the incoherence of the lyric style, without any of its sublimity, raves a little about some Hindoo tradition concerning the flood. This our author triumphantly points out as forming the middle of his poem. Again, towards the close of the 5th book, he alludes to

—‘ that mysterious shrine

That rested on the top of Ararat,’

This is the end: and ‘ thus,’ says he, ‘ the poem has gained a middle and an end.’

It would be a task equally unpleasant to us, and unprofitable to our readers, to follow the author in detail through all the books successively. It is a curious fact that, except the first, they consist of little more than an outline or verified abridgement of his favourite work, *Clarke's History of Navigation*; and he who knows

knows the character of that production, will be disposed to ask, Can a man gather grapes of thorns, or figs of thistles? Mr Bowles, however, has most amply repaid himself for the mottoes which his friend borrowed of him to adorn his vignettes. Not only the series of events is taken from the history, but the very episodes introduced to relieve the languor of the poem, are derived from the same source. The story of two unfortunate lovers, Robert à Machin and Anna D'Arfet, the longest and most laboured of his episodes, is a proof of this. It will be found in Clarke, related in all its details. Our author, indeed, carries his candour so far as to give us the prose account at full length in the notes; but, afraid of seeming to owe too much to his friend, he quotes as if he had taken it directly from Acalforado, of whom it is more than probable he never read a word in his life. The story is but a silly one, and is even less interesting in the poetical version than in the prose account. Who can sympathize with a giddy girl who leaves her aged father in solitude and misery, to embark with her lover on a voyage of discovery; who, in search of

——' scenes of delight,

Where love may lay his head upon the lap
Of innocence,—

——thinks it most sweet

To wander o'er the world with him she lov'd?

We extract the following specimen of the narrative.

' He pointed to the distant bark ;

And while he kiss'd a stealing tear that fell

On her pale cheek, as trusting she reclin'd

Her head upon his breast, with ardor cry'd,

" *Be mine, be only mine* : the hour invites,

Be mine, be only mine." So won, she cast

A look of last affection on the towers

Where she had pass'd her infant days, that now

Shone to the setting sun—" *I follow thee* "

Her faint voice said : and lo ! where in the air

A sail hangs tremulous, and soon her steps

Ascend the vessel's side : the vessel glides

Down the smooth current, as the twilight fades,

Till soon the woods of Severn, and the spot

Where D'Arfet's solitary turrets rose

Is lost—a tear starts to her eye—she thinks

Of him whose grey head to the earth shall bend

When he speaks nothing—but be all, like death,

Forgotten.

If this adventurous Miss perish in the expedition, it is no more than a just punishment for neglecting her filial duty in such a wild-goose chase after happiness. Yet the epitaph which her lover inscribed

inscribed on her tomb in the solitude of Madeira, has something pleasing and tender, especially in the first three stanzas.

‘ O’er my poor Anna’s lowly grave
 No dirge shall sound, no knell shall ring;
 But Angels, as the high pines wave,
 Their half-heard “miserere” sing!
 No flowers of transient bloom at eve
 The maidens on the turf shall strew,
 Nor sigh, as the sad spot they leave,
 “Sweets to the sweet! a long adieu.”
 But in this wilderness profound,
 O’er her the dove shall build her nest,
 And Ocean swell with softer sound,
 A requiem to her dreams of rest.’ &c.

The author is here in his element; but he has not breath for running the course of the Ode and Epode. His ‘Epode on the Siege of Acre,’ at the end of the 2d book, is a toiling effort at an elevation which he never can reach. We have all the external characters of the Pindaric,—interrogations, admirations, dashes, abrupt transitions,—now a very short line, now an alexandrine. But the pith and soul—the *mens divini*—is wanting. After touching upon the victory at Acre, he exclaims,

‘ What triumphs yet remain?
 Was it a groan?—A hero * fell—
 On Egypt’s plain
 More loud the shouts of battle swell!
 Host meets host with direr crash,
 Another † pours the red vindictive flash
 Of battle: Mourn, proud Gallia, mourn
 Thy distant sons scatter’d or slain,
 Whilst from their gory grasp is torn
 The ensign hail’d “Invincible” in vain!’

The defects we have pointed out in the choice and management of the subject of this poem, must, we fear, for ever exclude it from any great share of public favour. We do not, however, mean to assert that it is without its beauties. The author has most imprudently raised his reader’s expectations very high by his introductory lines; but if he be not dazzled by this *fulgor* of the commencement, he will occasionally be pleased with particular passages. These are almost all either of that sentimental or descriptive kind, for which the author had already distinguished himself. As an example of the former sort, we extract the following passage from the beginning of the 3d Book.

‘ My heart has sigh’d in secret, when I thought
 That the dark tide of time might one day close,

England,

England, o'er thee, as long since it has clos'd
 On Egypt and on Tyre : that ages hence
 From the Pacific's billowy loneliness,
 Whose tract thy daring search reveal'd, some isle
 Might rise, in green-hair'd beauty eminent,
 And like a goddess, glittering from the deep,
 Hereafter sway the sceptre of domain
 From pole to pole ; and such as now thou art,
 Perhaps New Holland be. For who shall say
 What the Omnipotent Eternal One,
 That made the world, hath purpos'd ? Thoughts like these,
 Tho' visionary, rise ; and sometimes move
 A moment's sadness, when I think of thee,
 My country, of thy greatness and thy name
 Among the nations ; and thy character
 (Though some few spots be on thy flowing robe)
 Of loveliest beauty : I have never pass'd
 Thro' thy green hamlets on a summer's morn,
 Or heard thy sweet bells ring, or seen the youths
 And smiling maidens of the villagery
 Gay in their Sunday tire, but I have said
 With passing tenderness—" Live, happy land,
 Where the poor peasant feels, his shed tho' small,
 An independence and a pride, that fill
 His honest heart with joy—joy such as those
 Who crowd the mart of men may never feel."

The following picture of the island of Madeira, at its first discovery, will serve as a specimen of his powers of description.

——— ' Seen thro' the parting haze
 Romantic rocks, like the depictur'd clouds
 Shine out ; beneath, a blooming wilderness
 Of vary'd wood is spread, that scents the air
 Where fruits of " golden rind " thick interpos'd
 And pendent, thro' the mantling umbrage gleam
 Inviting : Cypress here, and stateliest pine
 Spire o'er the nether shade, as emulous
 Of sole distinction, where all nature smiles.
 Some trees, in sunny glades alone, their heads
 And graceful stem uplifting, mark below
 The turf with shadow, whilst in rich festoons
 The flow'ry lianes braid their boughs : Meantime
 Choirs of innumerable birds of liveliest song
 And radiant plumage, flitting thro' the shades
 With nimble glance, are seen : they, unalarm'd,
 Now near in airy circles sing, then speed
 Their random flight back to their sheltering bowers,
 Whose silence, broken only by their song
 From the foundation of this busy world,

Perhaps

Perhaps had never echo'd to the-voice,
Or heard the steps of man.'

In the structure of his verse, he is a studied imitator of Milton; but it is always a faint copy, that puts us in mind of a grand original. He labours to vary the pauses and cadence of his blank verse with something of Miltonic richness. The same imitative propensity is observable, both in the frequency of his mythological allusions, and in the length of his periods, which are often extended to eight or ten lines, without interruption of the sense. A remarkable example of this, too long for insertion, occurs in p. 115. The following will convey an idea of what we mean.

————— 'A kiss
Stole on the list'ning silence; never yet
Here heard: They trembled even as if the Power
That made the world, that planted the first pair
In Paradise, amid the garden, walk'd,—
This since the fairest garden that the world
Has witness'd, by the fabling sons of Greece
Hesperian named, who feign'd the watchful guard
Of the scald'd dragon and the golden fruit.'

The reader will not fail to remark the poet's accuracy in fixing the date when the woods of Madeira first re-echoed to the sound of a human kiss.

There is nothing in the smaller pieces which conclude the volume, that requires particular notice.

We have given our opinion freely concerning the merits of this poem, and we are not conscious of having said any thing inconsistent with that 'spirit of fair criticism,' or that 'language of a gentleman,' to which the author, in his preface, is so obliging as to say 'he has no objection.' For our own parts, indeed, the known gentleness of our nature would induce us, upon a slighter hint than this, to make an extraordinary exertion to accommodate ourselves to the author's inclinations: but there are critics of a more ferocious temperament, who will be apt to say that they do not care whether he has objections or not, and whom, the bristling self-conceit of this implied defiance, will move only to derision. We certainly think him a very pretty poet in his way; but are sensible that our estimate of his merit must fall very far short of that which he has settled in his own mind as the right one. This difference, however, we gladly leave to the determination of the public, which will pass its judgment both on him and on us, in any spirit and any language it thinks proper, without regard to our objections or dissent.

ART. VI. *Sopra le Pretese Ossè d'Animali Terrestri, Silicei del Mont-Perdu, negli Alti Pirenei.* Riflessioni di Alberto Fortis, &c. &c. &c.

From Memorie della Società Italiana. Vol. X. Pt. I.

IN the *Journal de Physique* (Pluviose, An VIII. & IX.) our readers may recollect the account, given by M. Lapeyrouse, of certain animal remains said to have been found in Mont-Perdu, a part of the higher Pyrenees. That mineralogist had himself visited the spot; and he stated, in a very confident manner, that he had seen bones of terrestrial animals, in a state of petrification, among remains of shellfish, at the height of 1781 toises (more than 12,000 English feet) above the level of the sea. These petrifications were observed at the base of the conical summit of the mountain. No entire bones were found: all bore the appearance of having been cut through at the ends by a sharp instrument; for their fracture was perfectly smooth. They were composed of silicious matter, which had petrified the original substance more or less completely: and M. Lapeyrouse, after giving drawings of them, infers that they must have been bones cut by a prodigious force, and very sharp instruments, when the animals were alive. Such a strange narrative, it may easily be imagined, quickly excited the attention of geologists; but we know of no published account of the examinations bestowed upon it, except the one now before us. The celebrity of the author, both as a mineralogist, traveller, and a geologist, entitles his criticisms to great respect upon such a subject: and we are decidedly of opinion, that the judgement which he passes against M. Lapeyrouse, independent of the weight derived from authority, is strictly just, on the grounds of its intrinsic merits.

When our author was at Paris, he had an opportunity of examining the specimens, preserved in the Museum, of the fragments found at Mont-Perdu. He compared them with the skeletons in the National Museum of Anatomy; and both he and Cuvier were clearly of opinion, that only three small pieces had the least appearance of being animal bones. But, independent of this general circumstance, there are various points, both in Lapeyrouse's narrative, and in its deficiencies, which prove that he has drawn a very false inference when he denominates them the silicious fragments of bones of land animals. Abbé Fortis remarks, that three positions should first have been proved; viz. that the fragments were originally bones at all; that, if so, they belonged to quadrupeds; and, lastly, that those quadrupeds were land animals. Instead of proving any one of these things, the Abbé is of opinion, that Lapeyrouse's narrative is inconsistent with them all. Besides, no particulars are detailed relative to the position and construction of Mont-Perdu;
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it is only described by the very vague appellation of 'a mountain of secondary formation.' In the *first* place, after talking much of the vast number of the fragments and the very large size of some, Lapeyrouse only gives drawings of two very small ones, which he thinks are bones of a goat. *Secondly*, all the fragments were cut,—a thing most rare in fossil bones: nor was any one entire bone of an unequivocal kind found,—as a tooth for example. If these had really belonged to animals, the teeth would certainly have remained better preserved, and more easily distinguished than any other parts. Our author deposited in Cuvier's museum a piece of shelly tufa, found at Andria, near Naples, in which an entire tooth remained. *Thirdly*, the description of Lapeyrouse is in every part extremely scanty and vague,—forming a singular contrast to the precision and positiveness of his conclusions. From the smoothness of the fracture, the instrument supposed to have cut the bones must have been extremely sharp, and the force employed in cutting them, immense;—a point still more difficult to be proved than the existence of the bones themselves. *Fourthly*, the learned author observes, that pieces of real flint, exactly resembling Lapeyrouse's supposed bones in form and size, are frequently met with, for instance in the department of the Seine and Oise, among the beds of sand. The smooth fracture is universal in corals and madrepores: and the Abbé knows of a mass at Monte Galda, between Padua and Vicenza, containing talc, which, when struck, gives a smell of tufa. *Lastly*, he defends those who doubt the account of Lapeyrouse, from his charge of ignorance of anatomy, by referring to the first comparative anatomist of the age, M. Cuvier, who is very decidedly of Abbé Fortis's opinion.

Upon the whole, we are disposed to conclude with him, that although fossil bones are not uncommon, as in Siberia, at Montemarte, and in different parts of Germany and Italy; yet none have ever yet been found in chains of calcareous alpine mountains of ancient formation; and that the fragments described by M. Lapeyrouse, furnish no exception to the rule.

Having made mention of the volcanic masses in the neighbourhood of Padua and Vicenza, we shall add a few notices concerning those very singular productions, which occupied a considerable share of Abbé Fortis's attention for some years before his death. They consist almost entirely of tufa; but are chiefly remarkable for containing fishes of various kinds and sizes, in a state of complete preservation. The colour of these remains is dark brown; but the form of the living animal, in every part, is scarcely more perfect. That the tufa which encrusts them came from a neighbouring volcano in a state of eruption, cannot be doubted:

doubted: and, that the fall of the tufa, which follows, or rather terminates every such eruption, at once killed and incased the fishes, is equally obvious. But one appearance has been observed, which requires some farther explication. In a very perfect specimen, are found two fishes; one, of a large size, with half the smaller fish in its mouth, evidently in the act of devouring it. The small fish appears just seized by the other, and not yet bit in two, nor swallowed. How could the eruption have produced this phenomenon? That the heat of the lava boiling the water, should have killed the two fishes at once, is impossible; for some time must have elapsed in the process; and the larger fish must have let the smaller one loose. Still less could the fall of the tufa have killed the two at once: and, that they must have died at the same instant, is obvious from their position. If they had been thrown ashore, however suddenly, the smaller one must have escaped from the other's mouth. Abbé Fortis very ingeniously supposed, that while the eruption was going on, but near its end, a flash of lightning from the volcano passed through both fishes at once, and killed them instantaneously; that the shower of tufa immediately began to fall; and that the dead fishes were thus incased and preserved as we now find them.

ART. VII. *Sopra i Denti Fossili di'un Elefante trovato nelle Vicinanze di Roma.* Memoria di Carlo Morrozzo.

From Memorie della Societa Italiana. Vol. X. Part I.

THIS is a very interesting memoir, upon a subject intimately connected with that of the last article. The discovery of fossil bones, is an occurrence by no means rare; but the circumstances attending those here described, are very peculiar; and, fortunately, they have been examined with a more than ordinary degree of attention.

The bones described in this tract, were found by some peasants digging in a hill near Rome, in the month of April 1802. As soon as Count Morrozzo was informed of the circumstance, he hastened to the spot, and began to observe them minutely. He found one thigh bone of two feet four inches (Paris measure) in length; a jaw bone six or seven inches high; and several teeth, weighing above 25 lib. The size of the elephant must have been at least double that of the largest Asiatic elephants. On being exposed to the air, the bones mouldered. In 1755, another skeleton of the same kind was found near the same spot; its length was ten feet; and on exposure to the air, it speedily calcined.

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The bones now described lay north and south, at the depth of six palms, in a stratum of calcareous earth, mixed with vegetable mould; under which was a stratum of volcanic puzzolane, mixed with leucites.

Upon the bony parts of these remains, it does not appear that any particular observations were made: But the teeth presented appearances sufficiently singular. They consisted of two different substances; one soft, white and opaque; the other hard, yellow, semitransparent and horny, traversing the former substance, which resembled the gum or matrix, in tubulæ, or smaller sets of teeth. The same appearance was observed in the recent teeth of an African elephant. Our author examined both substances with chemical re-agents. With the mineral acids, the white matter gave a small effervescence; the yellow matter none at all. The phosphoric acid produced no effervescence, when poured on the yellow matter, and very little when poured on large masses of the white; but when mixed with the latter in its mouldered or calcined state, the effervescence was considerable. It would appear from hence, that the exposure to the air caused the bones to moulder, by enabling them to attract carbonic acid gas.

At Count Morrozzo's desire, Professor Morecchini analyzed both these substances; and his experiments are inserted at length in the present memoir. We do not conceive it necessary to follow his process minutely, and shall content ourselves with noticing the results to which it led. He found that the white and soft part, which we have called the matrix of the other, was composed of fluat and carbonat of lime, a little phosphat of lime, and animal gluten, and, he thought, also a small portion of alumine. The yellow and hard part, was found to consist chiefly of phosphat of lime, some carbonat of lime, and gluten. The proofs of fluoric acid are equivocal.

The same results nearly were obtained by Cuvier, on examining specimens of fossil teeth, and comparing them with the teeth of the African elephant. Hence it is inferred, that the opinion is erroneous which ascribes the remains found near Rome, to the elephants of Hannibal. Upon closely examining the description and the drawings, however, we find that the difference of structure is very trifling. The tubulous parts in two serieses of the African elephant's teeth, are almost exactly similar to those of the fossil teeth; and the appearance of the other series differs no more from the fossil bone, than from the former parts of the African elephant's tooth. Our author's own drawing must convince any one, on the slightest inspection, that the fossil and African teeth might easily have been different parts of the same tooth; much more, fragments of different teeth of the same species of animal.

ART. VIII. *Examen de l'Esclavage en general, et particuliere-
ment de l'Esclavage des Nègres dans les Colonies Françaises de
l'Amerique.* Par V. D. C. Ancien Avocat et Colon de St Do-
mingue. 2 tom. 8vo. pp. 600. Paris, 1802 & 3.

On looking into this work, we were delighted to find that it contained, what we had long been extremely desirous to see, a fair, open, and avowed eulogium upon slavery, with a manful and consistent vindication of the slave trade, founded upon an explicit statement of those principles which must necessarily be adopted by its supporters, but which so few of them, among us, can be brought to acknowledge. In this view, the work is very interesting, as bringing the question to a fair issue, and affording a full and steady view of those doctrines, of which we have only been able to obtain an imperfect and hasty glimpse, in the reasonings of those who have in this country defended the system of colonial slavery. We have occasion to know, also, that the principles maintained in this work, are precisely those upon which the French West Indian colonies are proposed to be administered, and that these volumes have been subscribed to by all the good colonists of that country, as their confession of faith. These considerations have determined us to enter pretty fully into the speculations of M. V. D. C.; and we are the more inclined to bestow upon him an extraordinary share of attention, because the facts which he has sometimes asserted, seem to us very likely to mislead the unwary—both from the confident tone of the author, and from his undoubted opportunities of information—unless they are thoroughly sifted and exposed; and because he has collected into one point, a variety of scattered opinions, exceedingly erroneous, but very popular, upon the general subject of negro slavery. It is not our intention, however, to give a complete analysis of this work, or to refute even every part of it to which we may find it necessary to allude. The doctrines which we most of all feel disposed to reject, are of an absurdity so palpable and egregious, that we need but quote them as curiosities, in order to expose them. After this part of our task is finished, therefore, it will remain to select the most material errors in point of fact (we willingly give them that name) which the author has committed; and to produce some very material evidence, which he has unwarily furnished, against a cause less consistently, but with greater moderation, supported by others. We shall conclude, by presenting our readers with a few considerations seldom attended to in the views which men usually take of the future progress of the negro race, chiefly in the New World.

In

In the general tenor of its logic, this work resembles most of those lately permitted to see the light in France. An abhorrence of the *equality* worshipped in the earlier part of the revolution, gradually leads to the abjuration of the *liberty* which used to be coupled with it. Hence, the transition is easy, to an utter rejection of every thing approaching to a republic; for, what are all popular forms of government, but modes of democracy? Therefore, the people must only think how they shall bow and obey. We are thus brought to the necessity of absolute monarchies, from the *very nature of things*. But the only danger is, lest they should be too mild. The people must therefore be carefully deprived of every thing approaching to privilege or liberty,—all of which ought properly to centre in one hereditary monarch. Now, what is personal liberty, but a modification of civil rights, for which few are fitted, and still fewer have any need? And do not men every day sell their liberties, or hire their persons, which is the same thing? Moreover, are not some men so brutified, that personal rights would be thrown away upon them? How natural, then, is it, that some should be masters, and others slaves? And how useful, too, is this subordination, which the vulgar call slavery? Not to mention other things, it is the source of good government, peace, sugar and coffee, national prosperity, ships and fine colonies. Hence we are easily led to the conclusion, that every thing is quite as it ought to be, both in the mother country, and the lesser colonies of France; that the weeds of privilege and personal liberty are wisely eradicated from both parts of the empire; and that the complete regeneration of that happy system only requires a continued submission to the Emperor in the Old world, and an increased importation of African beasts of burden (commonly called men and women by other writers) in the New. It forms an occasional variety in this scheme, sometimes to contrast the excellence of the Catholic religion with the horrors of revolutionary impiety; and at other times, to deny the authority of the Bible, and laugh at the precepts of all religions, when they interfere with the interest of the planters. Whether we have overcharged this sketch of the general principles of reasoning adopted by our author, and taken by him from the present fashion of Parisian writers, let the following particulars shew; in which, it may be observed, that he can frequently boast an entire originality, even among the productions of his own countrymen.

We pass over his long invectives against equality and civil liberty—his appropriate praises of the new government—his bitter abuse of the freedom enjoyed in Great Britain (which consists it seems of privileges partly hurtful and partly nonessential)—his arguments

guments to prove (what not long ago would have passed for a contradiction in terms all over France) that democracy is, of all governments, the most absurd. These discussions occupy much of these volumes. We shall only notice two particulars as specimens of the rest. He commits the slight mistake of supposing *juries* to be annually elected; and inveighs against so horrid an institution with due energy. (II. 115.) He maintains that English liberty is absolutely limited to these two privileges—robbing on the highway, and throwing stones at the king. (II. 59.)

It is of more importance to cast an eye upon his objections to personal liberty, and his continual praises of domestic slavery, under whatever form it may appear; for, by these, he ultimately supports his main positions upon the negro system. According to him, different men are born with different faculties, and are thereby destined by nature for different stations in society. Now, one station is that of slavery; therefore, certain men are born to be slaves:—nor ought they to repine at this lot; Terence, Phædrus, Æsop, and many other great men among the ancients, were slaves. The brave Gauls and Germans used to sell their liberties, or lose them, at play; and among the lower animals, we find none who do not thrive in the comfortable state of servitude. This last topic of consolation is so curiously imagined and illustrated, that we shall insert the passage at length, as a fair specimen of the rest.

‘Observe the largest, the strongest, the most ferocious, the most laborious and most generous of animals: both birds and quadrupeds become habituated to slavery;—for example, the lion, the wolf, the bear, the fox, and even the tiger, who at least *lives* in his cage. In the East, panthers, ounces, and leopards are employed in the chase, as dogs are with us. The elephant may be tamed, and rendered a domestic animal in a week. The very fishes themselves learn to know the voice of a master, and to receive food from his hands. The gold-fish lives contentedly in his jar in our apartments. I know only of the humming bird which dies speedily in confinement: and why? because he can no longer hop from flower to flower, and sip the nectar he loves. However, a Dominican friar, I believe his name was Feuillée, at Martinique, succeeded in keeping one three months, by means of the proper attention to its diet.’ (II. 282.)

In short, the aversion to slavery is a mere prejudice; wholly devoid of all reason; unfounded either in the analogy of nature, or the example of past ages; and utterly unknown even to the vulgar themselves, until the false philosophy of modern times, at which it is now become fashionable to rail in Paris, filled men’s heads with a multitude of dangerous chimeras.

Now, our author observes, that the order of nature thus clearly

ly requiring a certain portion of mankind to live as slaves to the rest, it is only necessary to inquire on what portion of the species this lot should fall. The Europeans are evidently out of the question; they are the nobler animal. The Asiatics are too far off, and might probably not come, when called, to take their place; besides, they have some good qualities. The Americans are not at all improper for the station; only that their numbers are small, their strength not very great, and they live in situations exceedingly inconvenient for the trader. Who then but the Africans can be the servile cast? And, of the Africans, who but the Negroes inhabiting the West Coast? Accordingly, a very large portion of this work is taken up with a detail of the bad qualities and defects of the Negroes; their necessary unfitness for every thing but slavery; and the infinite misery of their nature, until happily removed to the genial soil of the West Indies, where they both thrive admirably themselves, and are the source of every benefit to their proprietors. *

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* It is so rare to meet with a formal eulogy of slavery, that our readers might not think us serious in the statements we have given of the author's love for that condition (a passion which he shares with almost all the present race of French political writers), did we not give a specimen of his praises.

‘ I know nothing which is so well calculated to give sensible men a just idea of slavery, as the silence of Epictetus on his own condition: Add to this, the silence of Terence and of Phædrus. How happens it, that these ancient authors, who were themselves slaves, have left us no invectives against slavery? And how comes it to pass, that our modern writers who were slaves, declaim so violently against this condition? The ancients were acquainted with the nature of man; and the moderns only know the art of reformation.’ (II. 255. Note.)

That our readers may have some idea of the fatal tendency which the present dynasty in France has to check the progress of improvement, wherever liberty, or liberality of opinion, is at all concerned; and in order to demonstrate the truth of what we have observed concerning the abominable nature of the principles now propagated most sedulously by all the writers of the government, we subjoin the following anecdote.—A work was lately published in Paris by a Citizen Ferrier, of the Bayonne revenue department, entitled, ‘ *Du Gouvernement considéré dans ses rapports avec le Commerce.*’ The professed object of this very singular production, is to preach up the *whole doctrines* of the mercantile system, and to bring back men's minds from the errors in which the modern political writers, particularly Smith, have too long bewildered them. There is, literally, not one single absurdity in the whole extent of the mercantile theory which this work does not warmly espouse. In the ‘ *Journal des*

It may at first sight appear a little extraordinary, how one, who boasts of his belief in the Mosaic account of Adam (II. 139.), should so stoutly maintain that the negroes are beings descended of a race distinct from our own. If we rightly follow his reasoning, however, he would be understood to deny that the negro is a human being; at least, this seems the meaning of the whole catalogue given of his inferiorities, by far the greater part of which are corporeal. Thus, his *ugliness* is described in terms so extravagant, that one is tempted to accuse the whites of a very singular taste, as often as one thinks how many mulattoes there are in the West Indies. Their colour, and, above all, the woolly quality of their hair, is in like manner urged as evident proof of inferiority. Their perspiration is rancid; their taste obtuse; they sleep too soundly (in the country of the cart-whip, be it remembered); they have not even the appearance of courage; they are unsusceptible of love; yet (I. 219.) they make love songs. They

des Debats, (December 17. 1804), by far the ablest and most universally circulated of all the French gazettes, appears an article, written upon the whole with some acuteness of expression at least, and full of eulogium upon Ferrier's book, Dr Smith is styled, '*Ecrivain Anglois sans consideration dans son pays, mais reconnu comme une autorité dans le notre, sans qu'il soit facile d'expliquer pourquoi.*' Ferrier is asserted to have thoroughly refuted every position relative to the liberty of trade, &c. and to have succeeded completely in restoring the empire of reason and experience, '*uniformly at variance with Smith.*' It is maintained, that France has made the fatal experiment of leaving things to themselves in matters of trade, and that the result leads to a rigorous adoption of the system of compulsion and interference. The discoveries of modern political economists, are treated as some of the worst fruits of the spirit of innovation, which nearly ruined all Europe; and it is plainly asserted, that the politicians of the middle ages were wiser on these topics than ourselves. '*On était moins ignare en économie politique, dans les siècles ténébreux; il est vrai qu'alors on jugeoit de tout par l'expérience, et qu'aujourd'hui on tranche sur tout avec son esprit.*' These symptoms of a retrograde movement in political opinions, are not indifferent; for although, at present, the change is confined to a few, who are hired by the government, or frightened by their frivolous imaginations, to betray the cause of truth, the effect of their exertions will ere long be obvious upon the bulk of mankind—those who think by proxy. Even at this moment, the picture exhibited by such endeavours to check the speculative love of freedom, is sufficiently melancholy; and the same considerations render the case still more distressing, when we add the important circumstance, that the wretched views of policy thus reviving in France, spring up in the centre of the government itself, and influence its conduct accordingly.

They have the sense of hearing as delicate as the lower animals. Their sagacity in ordinary affairs, and expertness in exercises, are the effects of want of thought about the future, and brutal absorption in the business of the present moment. They are so musically inclined, that all their pleasure consists in the pipe and dance; nay, negroes have performed in the oratorios of St Domingo (I. 127.); yet they are mere grovelling animals, utterly destitute of all talents: and, as a proof of this, we are told that 25,000 livres have been offered for one, merely because he could draw an oval, and build a well; and that the whole race lived for ages on the west coast of Africa, without discovering America: (I. 105.) A vast number of other bad qualities are heaped upon them with equal liberality; and at last their close affinity to the lower animals is plainly inferred. Some of their tribes, it seems, can count no farther than three. Whole nations of them, instead of a human voice, utter a sound resembling a bird. Others speak in a sort of inhuman sigh from their chest. Many of them actually have tails, with red hair. 'So many marks of brutality,' says our author, 'make one believe that they are only one step removed from the state of the beasts.' And again, we are told that the lower animals confirm this opinion, by their instinctive preference of negroes to whites when they attack a village. From the negroes, the author extends his description to Africa in general; and concludes, that 'a country, where nature, expending her powers in producing monsters, has not sufficient energy to form men, and only fashions slaves under the human form disfigured, must be esteemed a land of curses,' (*terre de malediction*, I. 60.) That the propriety of using those inferior beings as slaves, or indeed in whatever way may best suit our purposes, should be maintained by the author of these opinions, cannot appear very surprising. Our readers may, however, wish to see how he states the question of the slave-trade in its more detailed view; and we think it important to give his argument on this subject, as it is only a naked exposition of the fundamental reason which has always operated in practice, and reconciled men's minds to so unnatural a commerce.

First, For us to take a few cargoes of negroes can be nothing, when so many are taken by other nations in all parts of Africa.

Next,

'The negroes in Africa are very fruitful. An overflowing population, which to industrious countries is a blessing, in Africa is the greatest misfortune. Before the arrival of the Europeans on the West Coast, this wretched nation was at a loss how to get rid of its supernumerary hands; and could only employ them in perpetual wars. On both sides, the massacres were nearly equal; and what the sword spared, the altar devoured.' (I. 170.)

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And here, by the way, we may remark, that war and human sacrifices are justified, as well as the slave-trade, as useful expedients to remedy the excess of population. *Thirdly*, We have the subject in a new point of view—

‘ At first the Europeans took a few slaves, from mere curiosity. By degrees they introduced them into the American colonies, where the congenial climate made them thrive wonderfully. It was soon found that the New World could not be cultivated, without a sufficient supply of this kind of men, who, for so many ages, had remained a useless burden on the earth. Devotion was at that time the great occupation in Europe; and it was believed that Christians and sugar might easily be made at the same time. Accordingly, the different powers authorised the slave-trade.’ (I. 178.)

Fourthly, The negroes in Africa, were they to hear of our abolishing the trade, would be the first to pray for a repeal of so hurtful a measure: (II. 228.) Our author, after enumerating the bad qualities and defects of the negroes, adds, ‘ Such are, and such always have been, the natives of stupid Africa. How unjust, then, to deprive a Frenchman or Englishman of a property in the *merchandise offered to all nations for sale!*’ (II. 229.) But as for the question, whether the slave-trade is, upon the whole, an advantage to Africa, he conceives that is a consideration which we have nothing to do with. It is, says he, ‘ *exclusivement de la competence du conseil de Guinée.*’ (II. 230.)

He informs us, however, that slavery is the lot and portion of negroes, and that they have no reason to repine.

‘ The slavery of the negroes, whether in the colonies or in their native country, has a foundation perfectly legitimate: it is derived from the *national*, nay from the *natural* law of Africa. On the coasts of that continent, and in the interior, where the trader pushes his transactions, a negro at his birth is subjected at once to the dominion of his parents, and of his chief: he becomes also liable to slavery from his fellow robbers, who may seize and sell him. *It is the law of his birth.* He breathes and grows under the chance of being a slave either in Africa, America, Tartary, or England.’ (II. 233-4.)

After this, it would be needless to give any more specimens. At last we have found an advocate who pushes his doctrines to the length of perfect consistency. For the man who defends the slave trade, on the ground that all Africans receive their existence from the hand of Nature, under the condition of becoming slaves as soon as their services are required, has surely nothing to fear from those various contradictions into which the more timid supporters of the cause have been betrayed, by a foolish attempt to reconcile it with the common principles of justice. When the negro is no longer recognized as a man; when Africa is maintained to be a land of curse, and the parent only of monsters; when

when the state of slavery is in general extolled for its superior comforts and blessings; when the negro race is said to be so fruitful, that the soil cannot maintain them, unless their numbers are thinned by wars, massacres and kidnapping; and when, at last, we are told that nature has from all eternity doomed each individual of that tribe to slavery as his portion, or birthright—we surely can have no hesitation in admitting the justice of the slave trade as a necessary consequence, and in commending the frankness of him who thus openly states, in their full extent, principles which others have been ashamed to avow, while they uniformly acted upon them. To inquire whether this slave trade is useful to those who carry it on, is a different question; and our author does not so well settle the point. He is, however, very short and confident upon it, as the following extract of his whole discussion may prove.

‘Is the slave traffic consistent with the interest of France? As well might we ask, Are sugar colonies advantageous to France? Is it her interest to have a marine? Without negroes, you can have no colonies: This is now a settled axiom. Without colonies, no marine;—another maxim. Instead of asking, then, whether the slave trade is necessary, ask whether colonies and ships of war are necessary.’

Such is the eighth chapter of this work, entitled, ‘A Discussion of the policy of the French Slave Trade;’ and occupying less than one small page.

Before leaving this part of the subject, we must give one specimen of our author’s style and manner of composition; which is, in general, far from being as bad as some of the foregoing quotations might lead our readers to suppose. We select a passage, in which he describes the character of the African governments. It is intended as a striking proof of the miserable state of the negroes in their native bondage; and it will be found to afford also a surprisingly accurate picture of the present government of France. There is, however, this material difference, that the Africans have hitherto produced no eulogists of their tyrants and general declaimers in praise of slavery.

‘The chiefs are raised to the supreme rank, either by striking exploits, or by usurpation, or by craft. They are enabled to maintain their power, by the habits of abject submission which prevail among the people, or by means of the terror which they inspire, if they can manage to surround themselves with satellites, hired to execute their commands. There is no fixed order of succession in the government. A certain process of reasoning is required to the formation of every hereditary dynasty, even of the simplest of all, a monarchy. Of this the negro head is incapable. With that fickle people, every thing is momentary; steadiness is unknown. In a single day, they make and unmake both their kings and their gods; and have as little reason in the one operation as in the other. Nevertheless, it sometimes happens that a chief will

will keep his station for life ; and there are even instances of his being able to transmit his power to a successor ; but these are matters of *fact* merely, in which *right* has nothing to do.

‘ The power of those tyrants has no bounds ; and they have not the sense to be moderate in the exercise of it. They sport with the goods, the lives, and the liberties of their subjects. Yet before they will give themselves up to the utmost excesses of tyranny, they take great care to conciliate the good graces of the priests, whose influence might be fatal with a people uncommonly prone to superstition. No pains must be neglected to secure this order of men ; and it is indeed far from being a very difficult matter. You have only to give them abundance of women, fish, fruits, &c. and to exempt them from the necessity of active exertion. When they are thus gained over, the tyrant’s despotism knows all bounds. He disposes, without restraint, of men, women and children—using or abusing them—butchering or selling them, according to the caprice of the hour.’ (I. 171.)

It is for such reasons as these that the Africans are denied to be human beings. But, with the exception of one particular—the selling of men, what part of this description does not apply to the happy and enlightened empire of France ?

It is evident, that the facts against the slave system, which are to be found in the writings of so prejudiced an advocate as the author of this book, are extremely valuable, and carry a weight to which they would not be entitled in any ordinary statement ; and, happily, all his zeal has not been sufficient to guard against the admission of some most important documents of this nature. We shall select a few of those which are the least known, or the strongest in their consequences.

We have already noticed some of his admissions, respecting the particular faculties of the negroes. Various notices of the same sort are to be found in different parts of these volumes. Thus, he admits ‘ that the tobacco produced in some mountainous districts of St Domingo, was wholly the property of the negroes, who raised it for their own use : ’ (I. 210.) The following passages deserve attention in the work of one who is disposed to deny the negro all capacity of voluntary labour, and of providence for their wants.

‘ After the field-work of the day is over, the negroes have still time left for making the round of their own gardens, and gathering the vegetables and other provisions which they want. The first thing they do, on returning to their huts, is to visit their little properties, their live-stock of pigs and poultry : ’ (I. 215.)—‘ They prepare for the great feast of the New-year for a long time before. The musical instruments are repaired ; the drum is strung anew ; every thing is got ready. The orator of the plantation is the only one embarrassed on the occasion : he has to compose a compliment to the master, and all the genealogy of the family.’—‘ The substance of his discourse is a number of wishes

wishes for the prosperity of the master; that his life may last till his hair have become as white as the *pitra* (a very white cloth), and till it may be necessary to carry him to the sun to acquire new warmth; that he may become so rich as to need pits in the earth for holding his treasures; and so forth. (I. 218-19.)—‘ Their songs and tales run generally on love; either in a lamentation, a hymn, or a satire; and they all join in the choruses with the leader.’ (I. 217.)—‘ An industrious negro reaps a thousand advantages from his garden. Bananas, potatoes, maize, water-melons, peas, pine-apples, pistaccio-nuts, furnish him a plentiful subsistence, and food for his pigs and poultry. He has even an overplus, which he sells at market, and thus acquires a little property, to be laid out in fine clothes for the holidays.’ (I. 194.)

But the following statement is a still more complete avowal, that there is in the negro no natural deficiency; but that his apparent inferiority is owing entirely to circumstances which the slave-trade first produced, and still supports.

‘ In their own country, the negroes are surrounded by every kind of fear, from the moment of their birth; the fear that their parents may sell them; the fear that kidnappers may carry them off; the fear that their chiefs may sacrifice their lives. These are circumstances sufficient to impair the character and talents even of negroes.’ (I. 135. note.)

And truly, those are the very causes to which the abolitionists uniformly ascribe the barbarism of Africa, and the apparent incapacity of its unhappy natives. Another fact is likewise subservient to the same argument. Nature, it seems, has placed the negroes in circumstances, which require little or no exertion of industry on their part; and our author enumerates all the facilities which they have in procuring ample support with scarcely any labour. The soil, the climate, and the waters equally contribute to his ease and indolence. (I. 144.) How can a people, placed in such circumstances, advance in civilization, or even in habits of industry, unless they are stimulated by new desires, and excited to the attainment of difficult objects? The intercourse of Europeans has indeed taught the negroes new desires, and has excited them to new exertions; but the exertions have been those which, of all others, are the most adverse to improvement,—the operations subservient to the slave-trade. Of this process our author himself has unwittingly furnished several striking illustrations.

‘ The negroes,’ says he, ‘ are too indolent to travel far from home; they never make excursions but for the purpose of stealing and selling each other. There are always some of these marauders lying in ambush near the villages, to surprise such of the inhabitants, men, women and children, as happen to leave their houses without sufficient circumspection. I have myself had a number of negroes of both sexes, who were thus carried off from their country.’ (I. p. 174.) Again, ‘ It was, till very lately, customary for the slave captains, of all nations,

to play the farce of a marriage with the daughters of the native princes, in order to procure a more favourable supply of negroes.' (II. 185.)

In the following curious exclamation, we recognize similar admissions regarding the mode of procuring slaves.

'What is meant by the *tears of Africa*? Without sentiments, there can be no tears; those who have no souls cannot weep. When an African has sold his infant, he sleeps, and thinks no more about it. Who then should weep for the trade? Not surely the kidnapper who sells his prey: on the contrary, he rejoices at the good bargain he has made, and only thinks how he may find an opportunity of carrying off more slaves to the market.' &c. (II. 199.)

In another passage, he gives us still farther insight into the mysteries of the slave trade, and inserts the information which he obtained from a slave captain (Bauman) noted for his great skill and long experience in the business. It appears, that when a slave captain arrives on the coast, if he has full powers from his owners to act as he judges best, he

— goes himself up the country, with good guides, and a number of his sailors, some of whom are well armed, and others loaded with samples of his goods. On the route, he is surrounded by negroes from all quarters, who come to bargain with him. He takes care, however, not to begin his operations before he has paid his court to the prince of the district; but he behaves with great kindness to the country merchants, and promises to open a slave traffic with them on his return. In the mean time, he distributes brandy among them; and they retire, clapping their hands in token of satisfaction.' (I. 179.)

It may be presumed that the interval between the captain's exhibiting his tempting samples, and applying his *douceurs* to the *country merchants* (who on other occasions are called *monsters* or *brutes*) and his return to those parts, is actively employed in procuring the requisite supplies of the only commodity which they can expect will be taken in exchange for the goods. But we shall follow this *trader's* progress up the country, and see how he traffics with the king, whom he first conciliates by large presents.

'It frequently happens, that the wives and children of the king are sold along with the other slaves. We have repeatedly seen those illustrious captives in our colonies.'—'Captain Bauman has assured us that one buys from time to time, whole families of kings, queens, princes and princesses. This happens chiefly in the revolutions of the country.' (I. 184.)

The same captain communicated to our author his journal or notes upon the negroes; and we are favoured with the following extract from this curious memoir.

'Negroes brought to the factories, loaded with irons, galled with their ligatures, half killed with blows, scarcely able to walk.'—'And from

from whom, asks our author, had they received this treatment? From their parents, from their friends, from their brothers, who brought them from the inmost recesses of the country, a distance of two hundred leagues (seven hundred English miles) to sell them at the factories on the coast.' (I. 211.—Note.)

Yet the slave trade is a blessing to those poor negroes! And the existence of factories on the coast has no sort of influence on their lot! And it is quite indifferent to them, whether they live at home, or are brought down this *jaunt of pleasure*, to see a little of European manners, and know what is called *life*! Before quitting the African part of the subject, we must extract one other passage containing matter of serious reflection to this country, and furnishing a new proof of the miserable consequences which our delay to abolish the slave traffic has produced upon the opinion entertained of our national character, as well as upon the conduct and sentiments of our companions in that crime.

'At the beginning of the French revolution, you saw the English throwing fire and flame against the slave system and the African trade. They publicly, and with great parade, discussed the question, Whether the traffic should be continued or suppressed? The newspapers were filled with debates on this great point. The Quakers caballed, the Methodists stormed; there was a terrible uproar all over the three kingdoms. What did the English then do? They adjourned the question for twenty years; continued to buy slaves for the culture of their colonies, and to sell the refuse of their cargoes to the Spaniards, and such other nations as had need for it. And what do those same English do at this day? They carry on the slave-trade, and talk no more of the slave system. Was not all their affected interest in the discussion, a snare laid to inveigle us?' (II. 237.)

He then goes on very absurdly to describe what he conceives must have been our motive for mooted the question, viz. a plan to excite the like fatal discussion in France, and thereby ruin her colonies. Such a ridiculous way of accounting for the conduct of England, certainly does not render the lesson, which the passage affords, in the least degree less instructive. It is enough that we see how universal the opinion of her insincerity has become, with every class of reasoners.*

If we follow our author to the interesting subject of the treatment of the negroes in the West Indies, we shall meet with facts

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* The author of another work on colonial affairs, M. Pagé, gives precisely the same statement in 1801; treating the insincerity of England as a matter of fact, which admitted of no doubt, and required no argument to support it. He accounts for our pretended movements in favour of the negroes, upon the very same hypothesis. See *Traité d'Economie Politique et de Commerce des Colonies*. (l. 102. et seqq.)

of equal importance, interspersed accidentally among his reasonings and declamations in favour of the slave system. Thus, though he maintains that the love of slave proprietors for their negroes exceeds all bounds, and gives various statements and anecdotes to illustrate the kindness and intimacy with which they are treated, we observe that all these facts relate to the *negrillons*, the little black children whom the whites play with as with domestic animals, while they are yet too young for any sort of work. He plainly admits the universality of the cartwhip. He describes the gang at work, with their driver constantly instigating them, almost in the language employed by the author of the 'Crisis'; he allows that this driver has the discretionary power of inflicting a certain number of lashes at a time; and he even tells us that the crack of the whip is the signal for the periods of work and rest. He bestows unbounded praise upon the humanity of the French law, which only allowed a negro driver to inflict a certain extent of punishment, (and who, by the way, saw that law enforced?); but he contrasts it with what he grants to be the practice of colonies, where no such rule is known, in the following terms.

' Their drivers are petty tyrants, who torture the negroes with impunity, according to the caprice of the moment. He may have a trifling dispute with one of the gang about a fowl, &c.;—*there*, is a sufficient reason for conceiving animosity. What becomes of the second negro in the field, if the driver may gratify his pique as he chuses? Shall the offence be judged of by an inquiry?—the remedy would be as bad as the evil; the authority of the driver would be despised, and he would no longer know the limits of his office. The danger is still greater as to a negress; she may have rejected the advances of the driver,—his love will be turned to revenge,—and then, woe to the negress who has slighted him!' (I. 238.)

All this is extremely just; but it fails in extent of application. It should be stated of the French colonies, in spite of the futile and absurd restriction of the number of lashes;—for who shall regulate that number when the master is necessarily absent, and the overseer little interested in the care of the stock? nay, who shall regulate the frequency with which the limited number is inflicted? and, admitting that all this could be regulated, who shall prevent the driver from making the fixed number more or less painful, according to his caprice? The constant subjection to that caprice, is the grand evil of the system; the pain or hurt is but a secondary consideration. When you place human beings in circumstances which necessarily subject every motion of their bodies to the controul of another's will, felt at each instant of their lives, you deprive them of all the sentiments which make the human

man character what it is in ordinary situations. Industry, conscience, emulation,—in short, every sentiment of the least value is out of the question; the man becomes, at the very best a *machine*. We shall only farther remark on this head, that although our author denies the hardships of field work in general, and maintains the superior felicity of the West Indian life to a negro, yet when he comes to talk of the particular enjoyments which compose that blissful situation, his descriptions of this paradise of the African race, are not quite consistent with his eulogiums. Thus he speaks rather disrespectfully of the main article, the climate.

‘ The climate is terrible, and has been justly described by the quotation applied to the West Indies—‘ *Terra devorans habitatores suos.* ’ It not only devours the men who are strangers to it, but even foreign animals, grain, plants and trees. ’ I. 210.

Through his whole declamation on the necessary affection of the master for his slave, (or, as M. Pagé calls it, the identification of the proprietor with the property, II. 35.), it is obvious that our author commits the twofold error which is included in all such theories of negro happiness. He forgets, first, that only immediate and striking views of interest will ever bridle the bad passions of men; and, next, that even admitting the master's temper were of the cool sort, which looks always at averages, and guides its movements by calculation, still the care of the negro, that is, his treatment, is in ninety-nine out of a hundred instances, entrusted to a driver and an overseer, who have no interest whatever in the matter. The perverse obstinacy with which all defenders of the slave-trade keep these particulars out of view, can scarcely be ascribed to any thing but a wilful omission of facts in their statements; and our excuse for introducing, here, what has so often been given before, must be found in the necessity of repeating the correction as often as the falsehood is brought forward.

We now come to offer, in the last place, a few reflections (suggested, partly by the foregoing topics, and partly by our sanguine expectations of the abolition) upon the probable fate of the negro race in the American colonies. The subject is interesting at all times, in a merely speculative view. It comprehends various questions of high importance in the philosophy of man; it touches upon the destinies of a large portion of the species; it is a discussion of the event which may be expected from the grandest and the most cruel experiment that ever was tried upon human nature—the sudden and violent transportation of an immense multitude of savages to a distant region and a new climate, and their forcible and instantaneous exposure to a state of comparative civilization.

Nor let it be thought, that general views of science, and what is usually derided under the name of philanthropy, are the only motives to the inquiry. The fate of a large empire, with all its wealth and power, depends upon the result of the discussion. The colonial establishments of the European states in the New World, form a mass of dominion scarcely inferior in magnitude to the proudest dynasties of ancient or modern times; and though their ruin would not necessarily involve that of the mother countries, it would completely subvert all the established relations between the different members of the European commonwealth, besides producing a vast absolute diminution in the prosperity of the Old World. We proceed to the discussion of such a subject with the diffidence which its numerous difficulties presented; and trust that by keeping our eyes closely fixed upon the *data* which facts present, we may avoid the ridicule so often attendant upon political prophecies.

To inquire what form the colonial society will assume during the continuance of the slave-trade, would be a very superfluous task. For if it shall be continued, in all human probability one of two events will speedily happen; either the fate of St Domingo will suddenly become the fate of all the negro settlements, or the West Indian system will remain a little longer on its present footing. By means not very easily perceived, the impending blow will be warded off for a season: Negroes will continue to be driven, tortured, and wasted, in proportion as new recruits can always be obtained from Africa. A scanty portion of the dregs of European society will still reside in the islands, and compose the whole of that colonial body on whom the preservation of the system depends. Each attempt of the enemy in St Domingo, or each effort of the slaves themselves to imitate the example of that settlement, will shake to its base the whole western wing of the European community, till, in the course of a few years, the frail tenure will give way, on which we hold those fine possessions; and all the monuments of the European name in the southern part of the New World, will vanish before the tempest which our shortsighted and wicked policy has for ages been raising. It is long since we predicted the consequences of a negro commonwealth in the Antilles, and attempted to show, by arguments, (the weakness of which has been unhappily strengthened by the course of events), that with emancipated Africans there can be no faith, no treaties, no fixed connexions of neutrality, not even the honourable and settled relations of modern warfare. The suppression of such a monster in policy was stated as a duty incumbent on every civilized state connected with the West Indian system. Unfortunately the nation has since been plunged into hostilities,

hostilities, which rendered such a line of conduct impossible; and although we by no means despair of seeing the efforts of France and Spain successful in St Domingo, still we feel redoubled anxiety as to the effects of a contrary event upon the colonies that remain tranquil. The negroes in St Domingo are already acquiring something like a navy; they have proposed to Great Britain conditions of alliance, which no civilized government can listen to. Here are at least two facts, which speak loudly to warn us of the dangers necessarily inherent in such a neighbourhood. What has England to expect? or what can she do to brighten her prospects? On this point also our sentiments have been repeatedly stated. Until the slave trade is at once boldly and totally abolished (for in our present circumstances delay is not prudence; it is rashness, in fact, —though it may result, like many other kinds of temerity, from real cowardice); until the root of all the evil is hardly struck at, and the main, universal cause of all our dangers destroyed, we can neither expect an hour's quiet in the slave colonies, nor any sensible alleviation of the manifold evils which crowd into the picture of West Indian society. Whether all the mischief of negro liberty comes at once, and falls upon the system with an instantaneous shock, or only undermines it gradually, and then covers it with ruin in the end, we need scarcely take the pains to inquire: the alternative is almost equal; and, while we persist in our present conduct, the stake is hardly worth the trouble of the game. The abolition of the slave trade alone can rectify those abuses, and counteract those frightful dangers which we have so often been obliged to contemplate in treating of colonial affairs. It may now be proper to inquire, what are the steps by which the abolition is likely to lead to such a desirable consequence.

Now, the various arguments which have been formerly urged, to prove the dangers of the slave trade in its natural effects upon the *security* of the West Indian establishments, lead us to the *first* point of view, from whence it may be proper to look at this subject. Nothing can tend more obviously to prevent proprietors from residing on their plantations, than the constant, and, at present, most just fear of insurrection. When a native of England is about to leave a home, in which the value of perfect security is only overlooked because it knows no interruption, he is forced to reflect on the blessings he has hitherto enjoyed, and to consider that they are not the gift of every government. In his choice of a new place of residence, the change of climate enters perhaps far less among his comparative views, than the shifting from a state of safety and protection to one of perpetual alarm; of real dangers, which no length of time can disarm of their terrors; and sufferings,

ings, which no seasoning can palliate. Even in the regular communities of the Old World, the difference of the rights enjoyed under various governments, has a prodigious effect upon the choice of emigrants in fixing upon new abodes. And what are all the fears of banishment to Siberia, or of French conscription, compared with the risks to which every white inhabitant of Jamaica is exposed, so long as Dessalines is emperor of Hayti, and has a troop of allies in the slaves of every British plantation? In proportion as the number and attachment of those allies is diminished—that is, in proportion as the British plantations are peopled by home-bred negroes, whom their masters are forced to treat well by the impossibility of filling their places—the danger of our planters must be diminished, and the just obstacles to choosing the colonies for a place of residence must be removed.

We may be assured, that the tendency of men is always to follow their stock. When it is vested in foreign trade, they may remain at home; but they generally reside where they see it oftenest. When it is vested in the carrying trade, it generally draws them to one of the spots between which it supports a circulation of commodities. When it happens to be vested in foreign agriculture, it seldom fails to draw them after it. In these lines of employment, no doubt, impolitic restrictions on the part of foreign governments may throw obstacles in the way of the capitalist following his stock, and yet allow the stock to seek its vent: climate we seldom find to produce an equal effect: but the general tendency is strong; and as soon as the artificial impediments are removed, its operation is distinctly perceived. In the very same way, it is clear that the great colonial proprietors ought naturally to reside on their plantations. Two principal causes now prevent them,—the dangerous nature of their colonial residence, and the superior attractions of European society. The latter is of much less consequence than the former cause; both because it operates chiefly on the more wealthy and less valuable as well as extensive class of inhabitants, and because it must be daily weakened as the improvement of the colonies advances. We have proofs, in all the descriptions given of St Domingo during the last year of its greatness, that the white society there was rapidly increasing, in numbers, elegance, and even splendour, merely from the strength of those inducements which lead men to follow their property; and the progress of such an improvement goes on accelerating; for every family that removes to the island, is a new inducement to those which remain. We may therefore conclude, that nothing but the dangers of insurrection could exert a very great and permanent influence in counteracting the propensity to which we have alluded, and that the measure which removes or lessens that danger,

danger, will necessarily and speedily remove or lessen the non-residence, hitherto so hurtful, both to the interests of the proprietors themselves, to the general character of colonial society, and to the prosperity of the system, in various other points of view.

The excellent management of the negroes in colonies where no supply can be procured, and where the great proportion of the whites reside, is a sufficient proof that these speculations are not founded merely in conjecture. Various circumstances, which it would be needless to enumerate, have placed the settlements of Spain and Portugal nearly in this predicament. Scarcely any proportion of the slaves which compose the lower orders in those colonies, are of African birth; the trade being extremely insignificant, and the natural increase of the blacks very rapid. The whites, too, reside upon their properties, and in the large towns scattered over South America, in a proportion elsewhere unknown. The privileges of the slaves have gradually been extended, first by custom, and then by law, until the period has actually arrived when a Spanish or Portuguese slave hardly conceives himself to be less comfortable, or even less important, than a person in the lower orders of the free inhabitants. The good treatment of those negroes, is partly owing to the residence of their masters, who are guided by their own eyes and interests, not their overseer's, and in its turn tends to encourage that custom of residing: it is partly owing to the difficulty of procuring recruits from Africa, and in its turn tends to diminish more and more the necessity of such supplies.

That the various bad qualities which have been ascribed to the negro character, often with great justice, belong rather to their habits than their nature, and are derived either from the low state of civilization in which the whole race at present is placed, or from the manifold hardships of their unnatural situation in the colonies, appears a proposition not only consistent with the analogy of all the other races of mankind, but immediately deducible from well established facts. The travellers who have visited the interior of Africa, where the influence of the slave trade is much less felt than upon the West Coast, assure us, that the natural dispositions of the negro race are mild, gentle, and amiable in an extraordinary degree: that, far from wanting ingenuity, they have made no contemptible progress in the more refined arts; and have even united into political societies of great extent and complicated structure, notwithstanding the grievous obstacles which are thrown in the way of their civilization, by their remote situation, and their want of water-carriage: that their disposition to voluntary and continued exertions of body and mind, their capacity of in-

dustry, the great promoter of all human improvement, is not inferior to the same principle in other tribes in similar situations : in a word, that they have the same propensity to improve both their condition, their faculties, and their virtues, which forms so prominent a feature of the human character over all the rest of the world. To detail the facts upon which these opinions are founded, would lead us beyond the bounds prescribed to this discussion ; but we refer our readers for a brief statement of them, collected from the accounts of travellers, who support the slave trade and slave system, and given in their own words, to the first Appendix of the tract formerly reviewed, entitled, '*A Concise Statement of the Question regarding the Abolition of the Slave Trade.*' Abundant proofs of the propositions just now advanced will be found in that Appendix, which is indeed only a transcript of various unquestionable authority. But to those who are aware of the value of analogical arguments in a question of this nature, the demonstration may be made still more simple and satisfactory. Let them compare the general circumstances of any European nation whatever,—and, if they please, the individual character, both for talents and virtues, of its inhabitants, at two distant epochs of its history ; and let them acknowledge at once how remarkable is the contrast in each particular point. Our readers need not be told that, little more than a century ago, Russia was covered with hordes of barbarians ; that cheating, drinking, brutal lust, and the most ferocious excesses of rage, were as well known, and as little blamed, among the better classes of the nobles who frequented the Czar's court, as the more polished and mitigated forms of the same vices are at this day in St Petersburg ; that literature had never once appeared among its inhabitants in a form to be recognized ; and that you might travel over tracts of several days journey, without meeting a man even among the higher classes, whose mind contained the materials of one moment's rational conversation. Although the various circumstances of *external* improvement will certainly not disguise even at this day, and, among the individuals of the first classes, the '*vestigia ruris* ;' yet no one can presume to dispute that the stuff of which Russians are made has been greatly and fundamentally ameliorated ; that their capacities are rapidly unfolding, and their virtues improving, as their habits have been changed, and their communication with the rest of mankind extended. A century ago, it would have been just as miraculous to read a tolerable Russian composition, or find a society of Boyars where a rational person could spend his time with satisfaction, as it would be, at this day, to find the same phenomena at Houssa or Tombuctoo : and speculators who argue about races, and despise the effect of circumstances, would have

have had the same right to decide upon the fate of all the Russias, from an inspection of the Calmuc skull, as they now have to condemn all Africa to everlasting barbarism, from the heads, the colour, and the wool of its inhabitants. If it be still maintained, that even in the end there will always be a sensible difference between the Negro and the European, we demand what reason there is to suppose, that this disparity will be greater than the difference between the Sclavonian and Gothic nations. Admitting every thing that can be urged in favour of the distinction of races, no one has yet denied, that all the families of mankind are capable of great improvement. And though, after all, some tribes should remain inferior to others, it would be ridiculous to deduce from thence either an argument against the possibility of greatly civilizing even the most untoward generation, or an inference against the importance even of the least considerable advances which it may be capable of making towards perfection. That the progress of any race of men, or of the whole species, in the various branches of virtue and power, must be infinite, was never, we believe, maintained by reasoners who deserved the name of philosophers. That this progress is in its nature indefinite; in other words, that no limit can be assigned to its extent or acceleration, is a proposition suggested by a thousand direct considerations, as well as obvious analogies, and deserves the name of a general fact, rather than a plausible speculation.

Without pretending to credit all that has been related of the improvements made by the Negroes in the different countries which they have been fated to inhabit, we need only cast our eyes upon a few unquestionable facts, and compare their achievements in several situations, to be convinced that the general proposition applies to them as well as to the rest of mankind. The superiority of a Negro in the interior of Africa, to one on the Slave Coast, is a matter of fact. The enemies of the slave-trade reasonably impute the degeneracy of the maritime tribes to that baneful commerce. Its friends have, on the other hand, deduced from thence an argument against the negro character, which, say they, is not improved by intercourse with civilized nations. But the *fact* is admitted. To see it exemplified, we have only to consult the travels of Mr Parke, edited by Bryan Edwards; and the same observation has been found, by Mr Barrow, applicable to the tribes south of the line, who increase in civilization as you leave the Slave Coast. Compare the accounts given by these travellers, of the skill, the industry, the excellent moral qualities of the Africans in Houssa, Tombuctoo, &c. with the pictures that have been drawn of the same race, living in all the barbarity which the supply of our slave ships requires; you will be convinced that the
negro

negro is as much improved by a change of circumstances as the white. The state of slavery is in none of its modifications favourable to improvement; yet, compare the Creole negro with the imported slave; and you will find that even the most debasing, the most brutifying form of servitude, the pitiless drudgery of the field and whip, though it must necessarily eradicate most of the moral qualities of the African, has not prevented him from profiting in his intellectual faculties by the intercourse of more civilized men. The events of the war in St Domingo read us a lesson on this point, which it would be happy if we could be permitted to forget;—negroes organizing immense armies; laying plans of campaigns and sieges, which, if not scientific, have at least been to a certain degree successful against the finest European troops; arranging forms of government, and even proceeding some length in executing the most difficult of human enterprises; entering into commercial relations with foreigners, and conceiving the idea of contracting alliances; acquiring something like a maritime force, and, at any rate, navigating vessels in the tropical seas, with as much skill and foresight as that complicated operation requires. (*See our Review of M'Kinnon's Tour, No. VIII.*)

This is certainly a spectacle which ought to teach us the effects of circumstances in developing the human faculties, and prescribe bounds to that presumptuous arrogance, which would confine to one race, the characteristic privilege of the species. We have, indeed, the proof in our losses. We have torn those men from their country on the vain and wicked pretence, that their nature is radically inferior to our own. We have treated them so as to stunt the natural growth of their virtues and their reason. Our crimes have been partly successful; for the West Indian, like all other slaves, has copied some of the tyrant's vices. But their ingenuity has flourished apace, even under all disadvantages; and the negro species is already so much improved, that while we madly continue to despise them, and, from our contempt, to justify a repetition of the crimes which have transplanted them, the real question in many a thinking man's mind is, how long they will suffer us to exist in the New world. All the arguments in the brains of a thousand metaphysicians, will never explain away these facts. They may tell us, that brute force and adaptation to the climate, are the only faculties which the negroes of the West Indies possess. Something more than this must concur to form and subvert armies, and to distribute civil powers in a state. And the negroes, who in Africa cannot count ten, and bequeath the same portion of arithmetic to their children, must have improved, both individually and as a species, before

before they can use the mariner's compass, and rig square-rigged vessels, and cultivate whole districts of cotton for their own profit in the Carribbee islands. The very ordinary circumstance of the improvement visible in the negroes brought over to Europe as domestics, and their striking superiority to such of their countrymen as still remain, either in Africa or the West Indies, may perhaps illustrate the doctrine now maintained, even to those whom the more general views of the fact have failed of convincing. It is certainly not assuming too much, to suppose that there is a wider difference between one of those black servants and a native of the Slave Coast, than between a London chairman and a subject of the Irish kings who flourished a few centuries ago. Nor is there any doubt that the fidelity, courage, and other good qualities generally remarkable in freed negroes, distinguish them as much from the slaves, of whose cowardice and treachery such pictures have been drawn, as the various feats of valour recorded in the history of the Welch, place them above those wretched Britons who resisted their Saxon enemies only with groans.

We may be assured, then, that there is nothing in the physical or moral constitution of the Negro, which renders him an exception to the general character of the species, and prevents him from improving in all the estimable qualities of our nature, when placed in circumstances tolerably favourable to his advancement. Nay, under all possible disadvantages, we find evident proofs of the progress he is capable of making, whether insulated by the deserts of Africa from all communication with other nations, or surrounded by the slave factories of the Europeans, or groaning under the cruelties of the West India system. That this progress will be accelerated in proportion as those grand impediments are removed; that while Africa is civilized by the establishment of a legitimate commerce between its fertile and populous regions, and the more polished nations of the world, the negroes already in the West Indies will rapidly improve in all the best faculties of the mind, as soon as the effects of the abolition shall begin to appear in the ameliorated treatment they experience from their masters, is a proposition which follows obviously from the remarks now premised. To trace all the probable steps by which this great measure must ultimately change the situation of the West Indian labourers, would carry us beyond the bounds of this article. It may be sufficient to suggest a few of the most remarkable gradations which will probably conduce to this necessary reform in the colonial system. And here we shall find direct arguments, from analogy, sufficient to guide us, if our readers are disposed to admit the legitimacy

gitimacy of reasoning from the history of other races of mankind, to the probable history of the Africans.

In the first place, it will not be long before a milder system of treatment increases the productive powers of the Negro's labour. That the first two or three seasons may be less prosperous for the planter, in consequence of the change, has been sometimes admitted by the advocates of the abolition. Indeed, changes of every kind have a tendency at the beginning to produce slight derangements in all political systems; and it is one of the miserable consequences of human impolicy, that the correction of the greatest evils in society generally increases, for the moment, the bad effects of the original error. But the connexion is so constant and so clear between industry and freedom, and consequently between increased exertions of voluntary labour, and the milder treatment which approaches the slave to the condition of liberty, that we may reasonably expect to see the temporary derangement last for a very trifling period. The history of all Europe demonstrates the immense effects which the milder treatment of the labouring orders naturally produces upon the value of their industry. To take only a very late example—It is well known that the proprietors of Hungary, almost immediately after the reform of Maria Teresa, began to feel the salutary consequences of the limitations of the *corvées* due from their peasants. When, instead of possessing full power to appropriate the whole of the serf's labour, the lord could only take two days in each week, he found those two days worth much more than all the seven had been before; although, at the very same time, he lost the right of retaining the peasant on his ground against his will. If such mitigations have been favourable to the master, still more advantageous must they be to the slave. And can any improvement bear more directly upon the condition of the lower orders, particularly upon their civilization, than an augmentation of their wealth and of their importance to the superior classes? Such will probably be the first great effect of the abolition, long before time shall have been given for any positive and definite change in the system. It is not unlikely that the number of holidays will next be increased, or the hours of work in the day diminished; that the Negro will by degrees be left more and more to his own care, and will begin to feel himself more dependent on the produce of his industry. The less that laws interfere in this delicate matter, so much the better for the master, and still more for the slave. The mutual interests of the parties will be the best of laws; the most just in its enactments, the most happy in its operation, and indeed the only one capable of being accurately

accurately executed.* When something like industry has taken root in the plantations, it may be time to introduce, in the same silent, gradual, and voluntary manner, the grand improvement of task-work. This has already been attempted with the happiest effect in several of the colonies; in Brazil; in some parts of the Spanish main; in the Bahamas, and elsewhere. (*See our Review of M'Kinnon's Tour, No. VIII.*) It has been introduced also in Surinam; though, from the peculiar circumstances of the Dutch planters, and perhaps from its premature adoption, it has not there produced such salutary changes as in the other settlements. Indeed, while the bad effects of the old system flourish in full vigour, preventing the general improvement of the slaves in their habits of voluntary exertion, it is only in certain kinds of work that tasks can be distributed. It is reserved for the new mode of treatment to render the *universal* introduction of task work, not only an easy, but a necessary improvement, by approximating the slaves to the condition of free labourers. And when these changes shall have been effected slowly, and with the consent of all proprietors, not taken by vote, but freely given by each individual; will not the lower orders in the West Indies be exactly in the state of the *adscripti glebæ*, under the milder feudal governments of the Old World? It is but one step to make them *coloni partiarum*, or serf tenants, paying a proportion of their crops to the lord of the land, as in fact they are already in some parts of Spanish and Portuguese America, where the richest ores and pearls are obtained, by means of this very contract between the master and his slave. Nor does it much signify in what form the last change

* Among the very few measures of detail which it may be hereafter found necessary to adopt, in order to prevent those occasional exceptions to the general good conduct of the masters, formerly pointed out, (*Review of the 'Grifts,' No. I.*) there is one that deserves our particular attention. It will be absolutely incumbent on the legislature of the mother country, to prohibit all carrying of slaves, against their will, from one colony to another, and from any of our own, to any of the foreign settlements. The certain increase of the Negro population, after the abolition, would otherwise give rise to a West Indian slave-trade, scarcely less abominable than the African traffic. The state of the slaves in Virginia may convince us, in general, how greatly their numbers must augment, in the more favourable circumstances of the islands. But the case of Curassoa is still more in point. It is a fact, unknown in this country, but perfectly well proved in Holland, that without a single importation, that island has for many years exported, annually, above 1500 negroes, the natural growth of its plantations. This circumstance deserves great attention, also, for its own sake.

change of all shall then be effected by the total emancipation of the Negro. He will, by this natural gradation, have become civilized to a certain extent, and fully capable of enjoying the station of a free man, for which all are fitted by nature. In the course of time, we may hope to see the same relaxation of prejudice against him on the part of the whites, which has made the European baron cease to look down upon his serf as an inferior animal. The mixture even of the races is a thing by no means impossible, and will remove the only pretext that can remain for supposing the West Indian society, as new-modelled by the abolition, to be in the smallest degree different from the society in Europe, after the successors of the Romans ceased to procure slaves in commerce.

These observations we now leave to the consideration of such readers as may take the trouble of comparing them both with the facts formerly stated upon the general question of the African traffic, and with the well known history of the civilized communities, to which they have themselves the happiness of belonging. We are fully persuaded that such a comparison need be followed but for a few steps, in order to demonstrate that the foregoing deductions are matters of fact, rather than of speculative theory; and that the only postulate required, to render the feeble sketch here exhibited, a correct portrait, is that leading measure which the enlightened legislature of Great Britain stands pledged in a manner to adopt,—the total and immediate abolition of the slave trade.

ART. IX. *The New Practice of Cookery, Pastry, Baking and Preserving, being the Country Housewife's best Friend.* By Mrs Hudson and Mrs Donat, present and late Housekeepers and Cooks to Mrs Buchan Hepburn of Smeaton, and published by her permission. 1804. pp. 242. 8vo.

Culina Famulatrix Medicinæ; or, Receipts in Modern Cookery, with a Medical Commentary written by Ignatius, and revised by A. Hunter, M. D. F. R. S. L. & E. The Second Edition. York. 1805. pp. 268. 8vo.

It seems to have been a complaint familiar in the mouths of our ancestors, and which we have too often seen cause to re-echo in the present day, 'That God sends good meat, but the devil sends cooks.' The irritability, the obstinacy, and the perfidy of the present culinary race, indeed, obviously demonstrate their ascent from regions even hotter than those which they occupy upon earth;

earth; and, while the direct attacks of the arch-enemy are opposed and counteracted by the clergy, who may be considered as the regular forces to whom our defence is entrusted, it is with pleasure we see a disposition, in the learned and experienced among the laity, to volunteer against the hordes of greasy Cosacks whom he detaches to those quarters, as marauders upon our daily patience and our annual income.

In first entering the field upon this occasion, we had some difficulty to settle the rank of these auxiliaries amongst themselves, or, to drop the metaphor, we were at a loss, after considering the high claims to attention preferred by both publications, to which we ought to give the precedence in our critique. It is true, Messdames Hudson and Donat prefer a bold claim to the grateful recollection of those who have regaled on their dainties. 'It becomes them not,' as they are modestly pleased to express it, 'to judge of their own merit; but with honest confidence they appeal to a numerous list of subscribers, who have *eaten and judged* of their works.' In this passage there is some ambiguity. If, by this intimation, it is meant that the subscribers actually eat the volume to which they subscribed, we, the Reviewers, will frankly tell Mrs Hudson and Mrs Donat, that, notwithstanding the evangelical authority which may be quoted for this literary diet, we cannot bring our stomachs to submit to it, especially as, in one sense, we are already obliged to devour many more works than we are well able to digest. On the other hand, if the judgement referred to was formed from actually partaking of the dishes analysed in this volume, we only want the opportunity, happily enjoyed by these subscribers, conscientiously to join in their verdict. Upon the slightest intimation, the long coach shall convey our critical fraternity to the hospitable mansion where these fair dames have presided, and do preside over the good things of the earth; and then—*fiat experimentum!*

By the same rule, although Ignotus resides at rather too great a distance for an inroad of this nature, yet an actual experiment might be usefully made on a Yorkshire pye, transmitted by the mail or waggon. And upon this fair system of practical knowledge did we propose to have decided the merits of these candidates for culinary renown, till we recollected the unlucky termination of a course of lectures on the art of cookery in this city, which was abruptly broken off by the indignant professor, in consequence of a hungry student having eat up a principal specimen, as it circulated through the class for the admiration, but not the consumption of the audience. Deprived, therefore, of this most agreeable mode of exercising our critical sagacity, we chuse to arrange the precedence of these rival works upon the gallant

gallant principle of *place aux dames*; and we are convinced, that Ignotus and his *éditeur*, although the latter be M. D. F. R. S. L. & E., will, with their usual good humour, give the front rank to the 'present and late Housekeepers and Cooks to Mrs Buchan Hepburn of Smeaton.'

The prefatory advertisement to this book is too interesting to be suppressed. It shows at once the deep learning of the ladies by whom it was written; their honest sense of the dignity of their vocation, and their laudable zeal for its being conducted on the true principles of the British constitution, as well as upon those of sound experimental philosophy.

'The late Dr Black, Professor of Chemistry in the University of Edinburgh, has instructed and enlightened the world by his philosophical, ingenious, and patient researches in that science, which somewhere in his works he has defined to be "the effect of heat and mixture upon bodies."

'This definition applies as directly to the cook as to the chemist: His kitchen is his school; his boilers, his digesters; his stoves, and not forgetting his cradle-spit, correspond to the crucible, the alembic, the retort, and the other apparatus of the chemist; and both are equally applied to prove the effect of heat and mixture upon bodies. It must be admitted, at the same time, that the range or kingdom of the bodies they severally operate upon, are wonderfully different. The chemist gropes below ground, and in the dark, through the mineral kingdom; while the cook operates in the light, and above board, upon the animal and the vegetable world.

'The judges also who are to decide upon the result of their several experiments, are not less different and opposite, than the subjects they have operated upon. The chemist lays his experiments, stuffed generally with mathematical demonstrations, or the more abstruse calculations of the *minus* and *plus* of algebra, before some Royal Society, composed of a few meagre philosophers, 'with spectacles on 's nose;' while the judges the cook appeals to, are all the jolly *bons vivants* in the Imperial Kingdom; and his compounds are drawn from every thing that is delicate and high-flavoured in the animal and in the vegetable world; and, without any other demonstration than what his larding and his sauces give, he appeals directly to the sound and nice palate of his numerous judges.

'The editors of the following culinary experiments do not pretend to rank with the ingenious and the philosophic Dr Black, Lavoisier, or other eminent chemists of the modern school. As, however, they are professed cooks, the natural attachment and vanity of *metier* may perhaps allow them to say, without offence, that they do hold the '*Art of Cookery*' to be not the least useful branch of the great and comprehensive science of Chemistry; and, having already avowed themselves professed cooks, they will not trouble their readers with a minute detail of the interesting incidents of their lives, as too generally is the practice of

of modern authors ; such as, where they were severally born, where educated and initiated in the mysteries of cookery ; suffice it to say, that they have each, successively, and for years, officiated as cook and house-keeper in the kitchen of Mrs Buchan Hepburn of Smeaton, who has kindly allowed them, for their own benefit, to publish the following receipts, which they have practised and performed there. It becomes not them to boast of their own merit ; but with honest confidence they appeal to a numerous list of Subscribers who have *eat and judged* of their works.

‘ They have subjoined many valuable receipts in housekeeping, for curing beef, for making of hams and bacon, for the dairy, and pastry-baking, and the best receipt for artificial yeast, which can be made and used the same day, and does not make the bread sour ; all of which they have practised at Smeaton with wonderful success : *In short they now offer to the world, not a cobweb theory of cookery, such as the flimsy constitution-mongers of France have spun for these twelve or fifteen years past out of their distempered brains, to deceive and ruin that miserable people* : No ! here facts only are narrated ; and by a correct attention to the directions given, the cook, whether male or female, may rest assured of meeting the approbation of the nicest and most delicate palate ; and will prove particularly useful for those who reside in the country. The different receipts for making the India currie powder and pellow, are taken from the best practice of their native country.’

From this advertisement, much extraordinary information may be derived. We have already noticed, that there is great room to believe that the subscribers, to testify their approbation of the contents, actually eat the book, like the man who, in his zealous applause of roast beef, devoured the spit from which it had been taken : but this is not all. We are informed, in point of historical fact, that the various legislators of France have, for these twelve or fifteen years past, been busily engaged in digesting systems of cookery. And, truly, though this is mentioned in rather derogating terms, on account, apparently, of their bad success, we consider the fact to be, on the whole, a discovery in their favour, since, for our own parts, we never suspected them to be so usefully or innocently employed. It is a fact of subordinate importance, but nevertheless somewhat curious, that the whole Royal Society make use of one pair of spectacles, placed on the nose doubtless of the President. We have long observed an unvaried coincidence in the views and pursuits of this learned body, and are happy to be able to trace it to a cause equally unsuspected and satisfactory.

As to the receipts which follow this curious and instructive preface, they are distinctly expressed ; and from the well known hospitality and elegance of the family in which they were composed, we have no doubt they will be found admirable. We must observe, however, that they are arranged in rather a mis-

cellaneous order; for after a receipt to make 'a half-peck bun,' we pass abruptly to another which begins, 'The flaked lime must be well sifted and steeped in a pit,' &c. &c.; and again, 'Take two shovels full of *coarse water sand*, one ditto of hammer slag well sifted, one ditto *powdered brick dust*, &c.' Now, although we are specially directed that the former mixture shall be wrought into 'thin porridge,' and the latter made neither 'too fat nor too poor,' yet, we are somewhat inclined to doubt, whether any management or attention in the preparation, could render them digestible by human stomachs, or, indeed, whether they can be strictly said to belong to the arts of cookery, pastry-baking, or preserving, unless the ladies are of opinion with the Copper Captain, that 'a piece of buttered wall is excellent.' Other receipts occur in which 'an ounce of *white arsenic*,' and the 'expressed juice of the *deadly nightshade*,' are the chief ingredients. These, we were at first glance inclined to suppose borrowed from the French systems already mentioned, perhaps the original recipe for a restorative cordial à l'hôpital, or a *fricandeu à Toussaint*,—if, indeed, the patriotic composers did not design them for the regale of the Emperor himself on his long announced visit.

The very *errata* of this work evince the care and deep science of the compilers. Some corrections refer to the ingredients; and it will be prudent to attend to them specially, as the error, according to the phrase of the Civilians, is sometimes in *substantialibus*. Thus, we have 'for *linen*, read *lemon*;' 'for *chicken*, read *onion*;' 'for *pepper*, read *paper*.' Others regard accessories; as, 'after *raspberries*, (in a receipt for making jam) add *together with two pounds and a half raw sugar*;' or, 'for *mix it all with the foregoing ingredients*, read *and mix them with a mutchkin and a half of brandy*.' Others refer to proportion; as, 'for *pint and a half*, read *bit*;' and, 'for *half a*, read *three thirds*.' This last correction appeared to us to conceal some new and abstract doctrine in fractions, adopted perhaps from the facetious Costard; for ladies acquainted with philosophy cannot be ignorant of Shakespeare.—'Biron. Three times three is nine. Costard. Not so, Sir; under correction, I hope it is not so. Biron. By Jove, I always took three threes for nine. Costard. O Lord, Sir, it were a pity you should get your living by reckoning, Sir.'—

Upon the whole, besides the receipts for dressed dishes, which it is not in the power of every housewife to place on her board, this little work contains many useful instructions concerning the poultry yard and dairy, which afford the cheapest and most wholesome regale to a country family.

The work of Ignotus, being more systematic and classical, claims a graver and more elaborate discussion. And, in the first place, we have to remark, that whereas all other books of cook-

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ery contain domestic receipts for medicine, promiscuously inserted amongst those for food. Ignotus, with the assistance, we presume, of his learned editor, has accompanied the description of each favourite mess, with a medical commentary on its use and abuse; an invitation to partake, or a caution to shun it. A suspicious person, considering the profession of the editor, might here be tempted to exclaim

Timeo Danaos et dona ferentes;

thinking, perhaps, that such a connexion may subsist betwixt a doctor and a disease, as betwixt a sportsman and his game, since, although the business of each is the destruction of individuals; both must be presumed to take great care to encourage the breed. But we will cheerfully acquit Ignotus of any premeditated design against our health; for, although his plentiful table stocked with the dainties described in his work, may occasionally have converted a guest into a patient, we are sure it could not be with the felonious purpose of indemnifying himself for the expence of the entertainment. For this we appeal to the following liberal sentiment, appended to an excellent receipt for pease-soup:

‘ This is a good set-off against high-seasoned dishes: An occasional abstinence that does not allow the stomach to be quite empty at any one time, is a measure highly salutary; and, for religious purposes, is perhaps preferable to long fasting; a practice, medically to be condemned. An honest physician who, regardless of his fees, can view with pleasure the healthy state of a family where he has been received with kindness, will be happy in the recommendation of a practice that is calculated to preserve the general health of his friends. But to the disgrace of a profession, otherwise useful and honourable, there are some men who, like the savages upon a rocky coast, view an epidemical disease as a “ God-send.”’ p. 113–14.

At the same time, while we do justice to the liberality of the views of Ignotus, we can by no means acquit him of leading his readers into temptation. It is hardly enough to say to an epicure, in the words of Cato, ‘ Your death and life, your bane and antidote are both before you.’ Describing a rich dish, and then stigmatizing it as unwholesome, is only calling for the water-engine after you have set the house on fire. Our first parents eat, when death was denounced as the inevitable consequence; and their descendants, with undegenerated courage, and a full consciousness of their danger, are ready to eat themselves into gout, and drink themselves into palsy. To add to the weight of his remonstrances, Ignotus has called in the assistance of Archæus, the genius of the stomach, a personification by which Van Helmont and others expressed the digestive power. Lest the unlearned reader should suppose Archæus, whose authority is so often referred to, to be the name, a French *bon vivant*, or a Hun-

garian professor, Ignotus gives us the following account of his person and office.

Van Helmont gave the name of Archæus to a spirit that he supposed existed in the body, for the purpose of regulating and keeping in order the innumerable glands, ducts, and vessels; and though this spirit visits every part, his chief post is at the upper orifice of the stomach, where he acts the part of a customhouse officer, allowing nothing to pass unexamined that, by the law of nature, has the appearance of being contraband. This part of his duty being only required during meal-times, the remaining part of the twenty-four hours (for he never sleeps) is employed in rubbing, scrubbing, and repairing the waste of the body occasioned by the continual friction of the fluids against the sides of the containing vessels. For this last purpose, and an important one it is, he is supposed to select from the chyle such particles as he may stand in need of; but he may sometimes be in want of one kind more than of another, he very judiciously obtains it by bringing on a *longing* for a particular kind of food. For example, when the internal coat of the intestines is abraded by a diarrhœa or dysentery, a longing is brought on for fried tripe with melted butter, as containing the greatest quantity of materials proper for the repair of bowels so disordered. To this circumstance, modern physicians do not sufficiently attend, neither are they sufficiently awake to the necessity of prescribing a diet for persons in health, whose chyle should be of a nature for supplying Archæus with *general* materials, without compelling him to call for them. The folly, therefore, of keeping to one kind of diet, whether high or low, is abundantly evident, as, in that case, Archæus must sometimes be overstocked with materials that he may have no occasion for, and be in want of such as his office may stand in need of. And here it will be necessary to remark, for the information of medical men, that a microscopical examination of the chyle of different men, made after sudden deaths, has proved to a demonstration, that the chyle of the human body contains different shaped particles, round, oval, long, square, angular, kidney-shaped, heart-shaped, &c. varying according to the food taken in. In consequence of this important discovery, the practitioner has only to direct such food as may contain the particles that Archæus may stand in need of. For example: Are the kidneys diseased? Then prescribe stews and broths, made of ox, deer, and sheeps' kidneys. Asthas require dishes prepared from the lungs of sheep, deer, calves, hares, and lambs. Are the intestines diseased? Then prescribe tripe, boiled, fried, or fricasseed. When this practice has become general, Archæus will be enabled to remove every disease incident to the human body, by the assistance of the cook only. And as all persons, from the palace to the cottage, will receive the benefit of my discovery, I shall expect a Parliamentary reward, at least equal to what was given to Mrs Stevens, Dr Jenner, and Dr Smyth. On the last revision of the College dispensatory, among other things of less moment, such as ordering fomentations to be made with distilled water, the name of Archæus was changed into *Animal Medica*, as more expressive of a *Maid Servant of all Work*. With
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men of deep researches, I will not dispute the propriety of the alteration, as I conceive that such a violence could not be done but after serious investigation.' p. 119—122.

This extract may give the reader some idea of the lively manner in which Ignotus has handled his subject. In fact, the whole book is very entertaining, and excites no small degree of interest, especially if read about an hour before dinner. The medical remarks are excellent, although apparently too indulgent towards the *gourmand*. The author stands completely exculpated from the charge of Dr Laet against the regular physicians, who 'drenched the bowels of Christians with pulse and water, as if they were the tripes of a brute beast.' Thus, it is remarked, 'as a singular circumstance, that persons of a gouty habit should be most fond of high-seasoned dishes;' but the singularity would have vanished, had the proposition borne, that the persons most fond of high-seasoned dishes usually have a gouty habit. It was not, however, to be expected that, with a stoical severity, Ignotus should bluntly attack the very critics on whose verdict his fame must depend. He is not sparing of gentle hints for their welfare; and compounds on the part of Archæus for three days' high-living, with a fourth day's temperance, and occasionally some gentle physic.

Where truth commands, there's no man can offend,
That with a modest love corrects his friend;
So the reproof has temper, kindness, ease,
Though 'tis in toasting bread, or butt'ring pease.

In fine, as long as a man thinks more frequently and more seriously about his dinner than about any thing else, as was the unvaried opinion and practice of Dr Johnson, so long will the parsley wreath won by Ignotus remain unblighted. The work is with great propriety dedicated 'To those gentlemen who freely give two guineas for a turtle-dinner at the tavern, when they might have a more wholesome one at home for ten shillings.' A fatted hog, the emblem, perhaps, of one of these worthy patrons, decorates the frontispiece. And so we take leave of Ignotus, in the words of Beaumont and Fletcher, as of 'a gentleman extraordinarily seen in deep mysteries; well read, deeply learned, and thoroughly grounded in the hidden knowledge of all sauces, fallads, and pot-herbs whatsoever.'

ARG. X. *An Inquiry into the Principles of Harmony in Language, and of the Mechanism of Verse, Modern and Ancient.* By William Mitford, Esquire. 8vo. 1804.

THIS interesting treatise, which was first published anonymously, has been greatly enlarged, and reprinted with the name

of its learned author. Mr Mitford has stated in his dedication, perhaps somewhat too boastfully, that more book-learning, acquaintance with living tongues, leisure, and industry, may probably not soon meet together in another person. We give him full credit for his learning; but the subject, as he has handled it, did not necessarily demand any extraordinary extent of reading. It did, however, require nice powers of discrimination; and those he appears to possess: it also required a very wide acquaintance with living languages, in which, we suspect him to be somewhat deficient; for it does not appear that he is acquainted with any but French, Italian, and the sister tongue of Spain. The work, however, is unquestionably valuable; though there are many points upon which we are compelled to differ from the author; and we are not without hopes that, upon reconsideration, he may assent to some of our statements; and that we may suggest to him some new and curious subjects of investigation, which we have not sufficient learning, leisure, or industry, to explore thoroughly. The most important points of difference between us, relate to the number and sounds of vowels, and the mechanism of Latin verse, which, according to Mr Mitford, is regulated solely by certain dispositions of quantities; whereas, in opposition both to that statement, and to the established creed of modern writers, we are humbly of opinion that, in various instances, it was regulated by accent also. This point is of some importance; because, if our opinion be not ill founded, it will appear, that many modern verses, which have been esteemed good and classical metre, are fundamentally faulty. We have not leisure to pursue these observations to their utmost extent: we shall deem it sufficient, if we can establish, that some accentual rules were observed; and we shall leave for the future investigation of those who have more industry and learning, to inquire into the truth of other rules, which we suspect to have existed; and to trace that which we suspect also, but of which the proofs are probably lost with the vulgar poetry of the dark ages,—namely, the gradual progress by which accent superseded quantity in European metre.

The introductory chapter of Mr Mitford's book, contains several definitions, which will be useful and even necessary to those who are inclined to consider the principles of harmony in language, and the mechanism of verse. We shall quote the most important, without commenting on them.

Of the articulated sounds of which language is composed, the smallest integral or portion which can exist as whole by itself, is what we call a *syllable*. Of the unarticulated sounds, which constitute music, the smallest integral is what we call a *note*. Among the properties of syllables, then, we must seek the principles of the harmony of language,

as those of the harmony of music, among its notes. A musical note exists only in its specific tone. By *tone*, we mean sound as it is characterized, not by any varieties of articulation, but by those indicated by the terms loud, soft, high, low, sharp, flat, shrill, deep. Among our grammarians, instead of the word *tone*, derived from the Greek, the word *accent*, derived from the Latin, is in common use. *Syllable* exists by articulation; with which tone, or accent, is necessarily co-existent, but not a specific tone. Any among the numerous varieties of tone, may co-exist with any among the innumerable varieties of syllable. Varying tones or accents, in pleasing succession, equally in music and in language, constitute *melody*. The time employed in pronouncing a syllable, compared with the time employed in pronouncing other syllables, at the same rate of delivery, is called, in grammatical phrase, the *quantity* of the syllable. The same thing, in speaking of a musical note, is called simply the *time*. The term *measure*, derived from the Latin, or *meter*, as we often call it, from the Greek, means measure of time, or quantity, as it is indicated by one note, or combination of notes in music, compared with other notes or combinations of notes, and by one syllable or by a combination of syllables in speech, compared with other syllables or combinations of syllables.' p. 4.

'Harmony in language, is the result of a happy combination of measure and melody.' p. 9.

Having explained himself thus far with precision, Mr Mitford proceeds, in the second section, to survey the sounds of the English language, and in a later part of the work, those of the Greek and Latin. In this, we find material cause to differ from him: we think he has confounded some sounds, and overlooked others; and are of opinion, that he has hazarded some assertions, which are quite unfounded. For instance, he has contended, that the Greeks could not have used the sound of the French *n*, because it is to be found only in the Parisian dialect; and in three different passages he asserts that no other people use this sound, or have any character to express it. (See p. 366.) The fact however is, that it is very frequent in the Danish and the Icelandic; in both which, it is expressed by the letter *y*, which is not applied to any other purpose by the Danes. The same sound is always given to *oo*, in part of Devon and Somersetshire, and in Norfolk, as well as to *o* in *to* and *do*, which is spoken shorter: with us in Scotland, it is still more familiar. It is likewise given in Gaelic to *no*; and we understand that it occurs also in Welsh. Mr Mitford is equally mistaken in saying, that the nasal *n* forms one of 'the characteristical features of the French language, which distinguish it at a wide distance from all others.' This nasal sound, which we express by *ug*, is perhaps much more frequent amongst the Portuguese; and from their manner of expressing it by a mark over the vowel, without writing the *n*, the French, perhaps, adopted the absurd notion, that

the nasal *n* is a vowel. 'Le son nasal étant une voyelle.' *Levisac*. It is possible, however, that this sound, which is not used in Spanish, was introduced into Portugal by the French, who settled there under Henry of Burgundy, father to the first King of Portugal, in the end of the 11th century. We believe it is also used in Valencia and Catalonia, which were rescued from the Moors by French assistance. Catalonia was ruled by French counts of Barcelona, till it was united to the crown of Arragon in the twelfth century.

Mr Mitford having enlarged very much, and in a desultory manner, on the sound of vowels, it is impossible for us to follow him regularly through all his observations. We think it better, therefore, briefly to state the sounds with which we are acquainted; some of which are not to be found in the English, and some are rare in other tongues. We do not indeed know of any language, in which all the vowels with their variations of long and short are used; and on that account, no perfect alphabet exists, by which they can be represented. Though we must in the following scheme use diphthongal characters to express some of them, we nevertheless mean to represent simple sounds, and we only use those characters for want of proper ones. By a vowel, we understand *the smallest distinct portion of sound, produced by a simple motion of the organs of speech, and long or short according to the length of the spiration*. We find nine distinct long vowels, all which (except perhaps one) have their corresponding short sounds; so that at least seventeen characters would be necessary to express them clearly. Of these nine vowels, three may be called *guttural*, because founded at the root of the tongue; three *labial*, because they are uttered by protruding the lips; and three *dental*, because they are formed by applying the tongue to the lower teeth.

Guttural Vowels. The first is spoken by throwing the breath to the lower part of the mouth, and pressing the point of the tongue downwards; the second, by keeping the tongue suspended; the third, by throwing the breath to the roof of the mouth and elevating the tongue. In speaking the third, the mouth is opened to its utmost extent; in the second, much less; and in the first, very little. The tongue must not touch the teeth.

1. *eu*. The long sound is perhaps not used in English, but it is in the first syllable of the French word *meurtre*, with the short sound in the second.—Short in *fan, sun, dirt, her*. The French female *e* is this vowel spoken very short, and in some words scarcely sounded at all.

2. *aw*. In *hawk*.—Short in *stock, wan, horse, mass*. The Danes express this sound by *aa*, the Swedes by *a* with *au* or super-script.

3. *a.* In *passing, example.* In the French *bras*, and the Italian *padre*, used longer than in any English words.—*Short* in *passive, ample.*

Labial Vowels. The positions of the tongue, and method of breathing in pronouncing these, are respectively similar to those which produce the guttural vowels; but in speaking the last, the lips are compressed and considerably protruded; in the second, they are compressed somewhat more, and protruded less; in the first, they are very much compressed, so that the point of the upper lip bends almost over the lower, which is drawn inwards a little.

1. *u.* Not used in pure English; but in the French *dûr*, and in the Gaelic *aon*. Expressed in Danish and Icelandic by *y*. Used in *moon*, according to the dialects of Devon, Somerset, and Norfolk.—*Short* in the French *du*; in the Somersetshire *to*; &c. We are not sufficiently skilled in Danish pronunciation, to state in what words this is used long, and in what short.
2. *oo.* In *fool, moon, you, brute.*—*Short* in *full, bush.*
3. *o.* In *more, hoary, morose.*—*Short*, a sound rare in English, though common in almost every other language. The last in the French *bouillon*, and the first in the Italian *uostro*. The English generally use it in *protect, morals*; but, for the most part, they give a short *o* the sound of the second guttural vowel, as in *horse*, &c. which foreigners pronounce with the true short *o*.

Dental Vowels. The first of these is spoken, by applying the tongue to the bottom, the second to the middle, and the third to the top of the lower teeth. In speaking the last, the mouth is opened to the utmost extent of which it is capable, while the tongue rests against the top of the teeth: the second with less, and the first with still less distension; but greater in all three than in the second guttural.

1. *e* in *hair, hairy.*—*Short* in *heriot, very, merry.*
2. *i* in *here, niece, peace, mere.*—*Short* in *hither, mist, mirror.*
3. *ei* in *fine, fight.* Frequently expressed in German by *eu*, as *feuer*; in Danish by *eg*, as *egn*, and *jeg*, which is pronounced like the English pronoun *I*, with a *y* before it.—We know of no word in which it is used short. It requires considerable organic exertion; and on that account, the force of the spiration is not easily moderated; nor is it used in all languages.

N. B. In the dental vowels, the different degrees of distension produce the variety of sound, and it is not very important against what part of the teeth the tongue shall strike; but the wider the mouth is opened, the higher the tongue strikes naturally.

Thus,

Thus, it appears, that there are three distinct classes of vowels, with their variations of long and short. We are aware, that in different dialects they are spoken longer or shorter, and thence arises the peculiar pronunciation of each country, which a stranger seldom acquires perfectly: but the broad division of long and short, is sufficient for general use. The second class may be made more or less labial: the German and Danish *ö* fluctuates between the first guttural and first labial. We do not think the human voice capable of producing any other distinct vowels. Those who are inclined to examine the accuracy of our definitions, must speak the vowels slowly, without adding consonants. The sound which we express in *house*, and which very few foreigners can imitate, is not a simple sound; it cannot be spoken by the protrusion of the lips, without first opening them for the guttural vowel with which it commences. The reason that foreigners seldom speak it right, is, that they attempt to compound it of *au-oo* or *a-oo*, instead of *eu-oo*; which can be spoken much more rapidly than either of the other combinations, because the tongue, in speaking *eu* quickly, is nearly in the same position as in speaking *oo*.

Diphthongs are formed by the rapid combination of two simple sounds; the middle vowels of the two last classes most frequently form a part in such combinations, and are then generally expressed in English by *w* and *y*; and they seem to have a singular affinity to the aspirate. Perhaps if all the nice varieties of pronunciation could be brought together, a chain might be discovered connecting almost imperceptibly the different forms of the aspirate with those two vowels, when used in diphthongal combinations. They may meet together, as in *you* and *wu*; or be reduplicated, as in *year*, *yēs*, *woo*, *wood*. The *oo* or *ou* is rarely used after a vowel, by the English, in diphthongal combinations, perhaps only after *eu* in *house*, &c.; *ao* and *eo*, which the Italians use in *aureo*, *Europa*, being never found in English. The English use several combinations with the *i* or *y*; *yoo* in *due*, *beauty*, *use*, *Europe*; *awy* in *coin*, *cloister*; *ay* in the monosyllable, and very frequently in reading Greek. And here we must take notice of a great error committed by those, who have stated that the long vowel in *fine* was the same as that diphthongal sound. Whoever has been accustomed to read Greek according to the English fashion, will immediately perceive the wide difference between *χαῖρι* and *χαῖρη*, the last having a simple, the first a double sound.

An attempt to introduce regular orthography into the different languages of Europe, or even to reform our own, as Mr Mitford has vainly attempted in some instances, would be fruitless; and even if it could succeed, would perhaps not be desirable, because it would render books already printed, in the course of time unintelligible. But the adoption of new characters to express the several

several vowels, with their distinctions of long and short, and the repetition of all words in Dictionaries spelt according to their sound by means of a general alphabet, with the omission of useless consonants, would greatly facilitate the pronunciation of different languages, and be attended with little difficulty. For instance, the sounds of *oui* French, *wé* English, and *widh* Gaelic, might all be expressed by the *w* and long *i*, or second dental vowel.

In the ninth section, Mr Mitford proceeds to consider the articulation of the Greek language. Our only sure guide in this part of the subject is the treatise of Dionysius *Περὶ συνδριστικῆς ἁρμονίας*, which is, however, not quite satisfactory. Mr Mitford is certainly mistaken in some points. He describes the Greek long *a* to be the *a* in *fall*, or the *aw* in *hawk*, which was undoubtedly not the case. It is perhaps the only Greek vowel of which the sound is explained without the least ambiguity, and it is clearly not the English *aw*, but the *a* in *pass*, or the longer sound in *bras* and *padre*. Dionysius says that it is spoken, *ἀναιργόμενον εὐμαρῆς ἐπὶ πλῆθει, καὶ τὸ πνεῦμα ἄνω φερομένη πρὸς τὸ ἑρῶδες*, ‘with the mouth opened to its utmost extent, and the breath directed upwards.’ The three dental vowels (the *a*, *e*, *i*, of the English alphabet) are all spoken with the mouth much more extended than our *aw* in *fall*; but the *a* in *pass* and *padre*, is spoken with the greatest possible distension of the jaws, and with the breath directed upwards, which is not the case in articulating *aw*. Mr Mitford says that *a* was the English *a* in *male* and *mail*; and thinks that Dionysius has *exactly* described it. This appears doubtful, for Dionysius describes the *iota* as a dental vowel, but not the *a*; whereas the *a* in *male* is spoken by applying the tongue to the root of the teeth, and striking the breath against them. His description seems rather to point out the French *eu*, in which case *a* would have the sound used in the first syllable, and *i* in the second of *meurtre*, which last the Danes also give to their short *é*. The confusion which the modern Greeks make between *a* and *u*, in some degree favours this conjecture; on the other hand, the present Athenian pronunciation renders the former most probable. *Iota* must have been spoken like the English *e*, which is the *i* of other countries, and *a* like our long *o*. Dionysius’s description of *a* certainly appears to point out the French *u*, by the great slenderness which he attributes to it; and perhaps the frequent occurrence of the same sound in Icelandic, where it is expressed by the letter *Y*, may tend to confirm this notion. The Icelanders have several other peculiarities which were common to the Greeks, such as the aspiration of *r* and *d*. The Icelandic *d* and Greek *δ* are both pronounced like the slender *th* in *the*, and the simple *d* is not used in either language.

Having dismissed the Greek vowels, Mr Mitford observes, ‘that
if

if we have reasonably to complain of any omission of Dionysius, it is, that he has not at all described the diphthongs.' It appears to us, that the treatise contains passages, which throw a pretty clear light upon the pronunciation of Greek diphthongs, and also of the iota subscript, which Mr Mitford has unaccountably overlooked. Commenting upon a passage from Pindar, in which the word *ἰνὶ* follows *Ὀδυσσεύῳ*, Dionysius observes, that the harmony is interrupted, and a necessary pause occasioned by the collision of the final *i* and incipient *s*, which never meet in the same syllable. It must be remembered, that the Greeks never use an incipient *y*, the letter *i* being always last in their diphthongal combinations. The same observation he makes on *Ἀγλαΐᾱ ἰδὲς*, where he says that the final and incipient *i* produce a difficulty (*ἀντιστοιχία*) in the pronunciation. Hence, it appears, that the iota subscript, and the final letter of the diphthong were pronounced exactly as that letter would have been spoken in any other situation; and he probably considered that, as he had described the sounds of the several vowels, those of the diphthongs which were formed by their combination, must of course be comprehended. Probably *oy* had the sound of *ow* in Bowyer, and *u* of *oy* in the French *oyer*.

The exact sound, however, which was given to letters by the ancient Greeks, is perhaps a subject of curiosity, but certainly not of indispensable importance in examining their versification: whether *oy* was spoken like *ow* or *oy* is of little consequence; but it is important not to give a short sound to a long vowel, and a long sound to a short one, which is subversive of their metrical rules. The great errors which Englishmen commit in reading Greek and Latin poetry, whereby they frequently falsify the quantity, arise from the confusion of long and short vowels, produced by the capricious irregularity of their own orthography. It may perhaps be thought extraordinary, that we who dwell (as we have said upon a former occasion) 'in this metropolis of false quantities,' should venture to discuss such topics; but this we must assert, that though the English may bring from their schools more rules of prosody to assist them in composition, their ears are as callous to the faults which they daily commit in reading their own productions, as those of the most unlearned amongst our countrymen. Mr Mitford has handled this part of his subject well, and to his book we refer the reader; if he perceives not at once the absurdity of giving *cāno* the long sound of *main*; and *vīrum* that in *fine*, instead of the short sound which is properly expressed in *viridis*; or, on the other hand, pronouncing the last syllable of *primis* with the short *i*. The same observations are applicable to Greek, in which, not only quantity, but accentuation also has been disregarded. We know that it is asserted by some, that Greek accents are to be considered merely as expressive of musical notes.

If they mean simply that, in applying Greek words to music, the accents were important, we perfectly agree with them. The accents, with which Latin words were and are still spoken; the accents, with which Greek were, but are no longer spoken; and those, differing in rules of position from both the former, with which our own words are founded, must be of the highest importance in applying the poetry of those several languages to music. But we must assert, that if Greek words were to be set to music according to our present mode of pronunciation, the accents marked over them in writing would be wholly unimportant, and the new accents thrown upon the words by the Latin rule, which we have adopted in reading Greek, would be the sole object of consideration. Accent and quantity may both be observed in applying words to music; and undoubtedly, the old composers of Greek music did in some degree attend to both. In the poetry of most modern languages, quantity has been little regarded: orthography in our own is so capricious; the same letter in different words so often used to express different sounds; and consonants so frequently superfluous, that quantity is scarcely distinguishable. The composers of modern music have assumed to themselves, naturally enough, the license of making long syllables short, and short ones long, and of accenting unaccented syllables. To this very circumstance, in his own days, Dionysius alluded, stating, that it was not unusual to force and alter the quantity and accents for the music, instead of adapting the music to them. By this, the musical composer certainly gained an advantage, but the poetry was destroyed. The natural consequence followed; the later Greeks began to disregard quantity, and wrote their *εἰς πολιτικά* (which may be translated *popular poetry*) exactly as we do. The *σύνεσις* *ἱστορικὴ* of Constantine Manassies is written without any rules of quantity, but the same accentual cadence is preserved throughout the whole. For instance,

*Εἰς Σικελίαν ἀποπλεῖ
τὴν πολυφροσύναν,
τὴν πάλιν τὴν βασιλείαν
ἀποκαταστήσει δόλων,*

pronounced according to the accents, is nearly similar to the old lines,

‘ Then into England strait he came,
with fifty good and able,’ &c.

We have never seen the laws of the *εἰς πολιτικά* explained; and, considering their simplicity, it is very singular that Doctor Foster should have written thus; ‘ Whether the metre of them be considered as *accentual*, or as common *temporal* metre, it is faulty and corrupt each way; but, on the whole, I do not think it *accentual*. We have, however, examined a large part of the *σύνεσις*, without discovering

discovering any lines that offend against the following simple rules: The verse shall consist of 15 syllables, and shall be divided into hemistichs of 8 and 7. An accent shall invariably fall on the 14th, and no expressed accent, grave, acute, or circumflex, shall fall upon any odd syllables, saving the 1st and 9th, in which the aberration is permitted, excepting in the case of monosyllables and acute accents, thrown by an enclitic upon a circumflexed word, which may occupy any of the odd places except the last. This metre is not connected, as some have imagined, with the catalectic iambic, which has not that division, and seldom that cadence; but it is an accentual form of the trochaic, quantity being disregarded. Many such verses will be found amongst the trochaics of Aristophanes and the tragedians: For instance, *Εἶρα θυμῶν ἰφάρκας διὰ γὰρ κινεσίναι*. *Nephel.* It is difficult to ascertain exactly, how and when quantity was first banished: these *εἶροι ποιηταὶ* are of the 11th century. Not long after, Tzetzes wrote verses exactly similar; but although they are accented like our poetry, and clearly derive their whole harmony from those accents, he, the same Tzetzes, wrote also strict iambic verse; and though there is no reason, nor shadow of reason, for supposing that he pronounced each individual word differently in the different metres, he expresses his sense of the superior excellence of those, in which temporal rules were observed. By this it appears indisputably, that the Greek words were then pronounced according to their accents; that such pronunciation did not, to a Greek ear, destroy the harmonious cadence of temporal verse; and that the same combination of accents did produce the same metrical effect in that language that it does in ours; and certainly they deserved the same consideration from a composer of music.

But if it be further asserted, that such accents were solely expressive of musical notes, and were not regarded in conversation; or, if they were, that such conversation must have been in recitative: we ask whether those, who hold that opinion, are prepared to say, that a Greek orator, using the word *μητροκτόνος*, would have had no means of expressing whether a man had killed his mother, or been slain by her, without having recourse to musical notes; and, consequently, that such of his audience as were not gifted with good musical ears, might have doubted which was the case? *Μητροκτόνος*, slain by his mother, and *μητροκτόνος*, a matricide, differ only in their accents. These words the English reader pronounces alike, *metrotoktonos*; giving the 2d and 4th syllables the force used in *moſe*, and preserving nearly the true short *o* in the 1st. We request our readers to speak the word with the short *o*, as above explained, in all the three last syllables; and, not suffering the long *o*, or short *au* to intrude themselves, to throw the accent in one case on the second, in the other on the 3d syllable, and

and they will find, that without at all approaching the long sound, (which must be expressed by *meetroke-tone-ofe*) they may throw an accent as emphatic as the energy of the cause might require, upon either ; and that it would be distinguishable without the least ambiguity, as far as the voice could reach. The same is the case with the English word *revenue*, which some accent on the first, and others on the second ; but none, except a few of our countrymen, pronounce it as if the accented syllable had a long *e*, which would be expressed, according to English orthography, by *rai-venue* or *revainue*. Let it not be said that the *v* or *n* are doubled ; an error not unlikely to arise from our faulty orthography. When a letter is reduplicated, we very rarely pronounce both, which we are convinced the Greeks and Romans did ; for they could not have deemed them longer than a mute and liquid, if they had not distinctly sounded both consonants, as the French do in some futures like *je courrais*, and the English in some compound words, like *overrun* ; or where a mute *e* intervenes, as in *supineness*, *solely*, &c. For this reason, no Greek or Latin words end with a reduplication. With us, a reduplicated consonant is generally a sign that the preceding vowel is short, and bears the acute, and only one is articulated.

Trissino's *Italia Liberata* was printed in 1547 & 48, with Greek vowels, in Italy : this edition may be of great use in explaining the Greek pronunciation, and the difference between accent and quantity, which have been strangely confounded. The Italians have a distinct long and short *o* ; the first pronounced like ours, the second as we have above stated. In their verbs, the first person of the present tense ends with the long *o* unaccented, and the third of the past with the short accented : therefore we find very properly the present of *tornere* printed *turno*, and the past *tornd* ; at the same time *honor* accented on the last is printed *banur*, and *vostro* accented on the first is *vostro*. We pronounce the Latin *vos*, as if written with *u* ; but the sound in the first syllable of *vostro* is very different from that, and from the short *au* which Englishmen express in *voster*. No good speaker of Italian will give the same sound to the accented syllables of *tornd* and *onar* ; like the former is the Greek *μωρds*, and very different from *mordse* or *mordfs*. The acute accent certainly does not induce length of time : the more rapidly an Englishman pronounces the contraction *I don't know*, the more strongly does he accent the middle syllable ; and in the same manner should the Greek *ουρινω* be articulated. Dr Foster was not able to divest himself sufficiently of habitual prejudices, to consider this justly ; for instance, he said (p. 31.) that in speaking *honestly*, the voice dwelt longer on the first than the second syllable ; an assertion, when applied to English pronunciation, directly contrary to fact, and which has arisen

arisen from the strange confusion that has been made between accent and quantity. In the first of that word, we find the *aw*, as it is used in *back*; but the most acute accent that can be thrown upon it, will not make it approach the more to the long sound in *haruk*, which is produced by the same motion of the organs of speech, with a longer breathing. The theory of Sheridan was so unintelligible, that it scarcely requires notice. He felt the truth, but old prejudices prevented his fully comprehending it: and therefore, when he found short syllables accented, he said that, in such cases, the accent was on the consonant; forgetting, that co-existence with some vowel, and conformity to its tone, are the principal clauses in the charter by which consonants hold their place in articulated speech. It has been however disputed, whether, in the English language, the accented syllables are pronounced higher, or only louder, than the others. We are persuaded that, according to the best English articulation, they are spoken in a higher tone; but we are willing to admit (as Mr Mitford does) that it is possible to speak one syllable louder than the rest, without speaking it higher; and perhaps in some provinces that habit may prevail: but we agree with him, that it would produce an effect very inferior to the melody of good English speech. This, however, we must observe, that, whether spoken higher or louder, a short syllable will still be a short syllable; for length of time has nothing to do with high or low, loud or low. We are not surprised that our learned countryman, Lord Kaimes, should have held that every accented syllable in English was long; for it is the peculiarity of our Scottish dialect rarely to use the acute, but generally to prolong the syllable which the English accent; as it is perhaps the peculiarity of the Irish to speak it in a higher tone than Englishmen. Hence arises much confusion in the discussion of this subject. We readily admit, that the tone which our countrymen generally give to the accented syllable, is incompatible with brevity; it is the proper tone that should be given to the Greek circumflexed vowel; and the circumflex cannot be placed on a short one: and perhaps that heavy circumflex, which invariably adheres to our lowland articulation, may be more unpleasant to a foreigner, than the lighter monotony of the French; but we hold, that speaking the accented syllable higher, as the Irish do, or merely with greater emphasis, as some think the English do, is very different from prolonging it.

Mr Mitford, who appears to be unacquainted with German, has learned from a sentence in Cesarotti, that an extraordinary hexameter-mania had lately pervaded Germany; and he merely repeats the fact. It is, however, intimately connected with

with this subject, and requires some consideration. Klopstock, whose reputation is perhaps undeservedly great, has prefixed to his Messiah a treatise upon that disgusting abortion which is called the German hexameter. A few extracts, which we translate from the German, will be sufficient to explain the nature of his system.

‘The rule of our hexameter is to use the dactyle oftener than the trochee, and that oftener than the spondee. We dare not use the dactyle so often as the Greeks, because the trochee is not so slow as the spondee; and that (as the third foot in this species of poetry) does not occur frequently enough; to counterbalance the numerous dactyles. It must be allowed, that our epic verse has greater variety than the Homeric hexameters. I call them by that name, because Homer’s are more beautiful than those of any other poet, Greek, or Roman: but I must apologize for apparent partiality in preferring the rhythm of our hexameters.’——‘I prefer it for two reasons; 1st, Because the dactyle and trochee are very similar, and the spondee has no nearer affinity to the dactyle than any other foot, except the molossus!!!!’——‘2^{dly}, Because the rhythm of our verse, being more various than that of Homer, has a beautiful metrical expression: and I trust that these two reasons will be sufficient to acquit me of partiality. But I will further prove my impartiality by confessing, that one superiority in the Homeric verse is, that the rapidity of the dactyle is better supported in it by spondees, than in our hexameter by trochees. Our poets can, however, lessen that superiority, by exerting themselves not to use the spondee too seldom, which we can get by means of our monosyllables; and also to choose such trochees as, according to Greek pronunciation, would be spondees.’

If the German poet has not proved his impartiality, he has at least expressed very novel and curious notions of quantity: but though all this be nonsense as unmixed as ever flowed from the pen of man, it deserves some notice, as having fallen from one of high authority on the Continent, who has had numberless imitators, and has in a manner destroyed all sense of good poetry in Germany. Proceeding to explain himself further, he states that the Germans have words exactly similar to the Greek; as, *würfen*, *βάλλειν*, *huldigung*, *ὑμῶν*, *heilighed*, *ἁγιάζειν*. This is inaccurate; for no Greek word ending with a long syllable, like *huldigung*, can be accented on the antepenult; if he had taken Latin words indeed, and written *fulminant* and *fulminis*, he would have been right. We, as well as the Germans, have many words spoken according to the Latin rules of accentuation, and, of such, a true hexameter verse might certainly be composed; but if all were so accented, the metre would not suit our languages, because the consonants are so numerous, that our lines must consist entirely of spondees, instead of either trochees or dactyles; which he mentions, mistaking accent for quantity.

But many of our words are accented in a very different manner ; *cruelty*, *nourishment*, *lebende*, *todesstreich*, are not accented like *honesta*, and *descendant* : and, on that account, the same combination of quantities would not produce the same cadence or combination of accents ; and consequently would form a different verse. For these reasons, it is evident, that no series of verses can be written in our languages exactly similar to Latin hexameters. But the species of verse, (if verse it can be called), which, under the auspices of Klopstock, has overrun Germany, and even invaded Denmark, bears little resemblance to them. The scheme of the German writers is to place an accented syllable where the Romans placed a long one, and an unaccented syllable where they used a short one ; as if accent and quantity were similar. In *intremere*, the second is short and accented, the first long and unaccented : in *honesta*, the reverse is the case. But (reply the Germans) we disregard quantity, and our poetry is regulated by accent, as that of the Romans was by quantity. We are willing to admit, for the sake of argument, that quantity has been disregarded in the poetry of modern languages, and that in many instances irregular orthography hath so confused it, that it is not easily distinguished. But how does it follow that accent is similar to quantity, or will produce the same metrical effect ? Had not the Romans accent as well as distinct quantities ? Do we not know that their words were accented by an invariable rule, and do we not now adhere to that rule in reading Latin ? namely, *that if the penult be long, it shall be accented ; if it be short, the antepenult shall be accented, whether long or short*. And is it not evident, that, under that invariable law, certain combinations of quantity must produce certain combinations of accent, very different from those which would be made by fixing the accents uniformly in the place of long syllables ? For example, we will take a favourite line, which Klopstock has quoted from the Messiah, in his treatise. Though every syllable except the last is long, it is intended for a dactylic hexameter, an accent falling on the first of every three syllables. The same cadence has been used in English and Spanish ; and it is, in fact, a verse of the triple accentual cadence, improperly protracted to the length of 17 syllables without a pause. We have no hesitation in asserting, that (waving all consideration of quantity) a verse so accented could not be admitted in Latin heroic poetry, and we doubt whether it could in Greek. We should look in vain through Virgil for a verse which could answer to it ; and *Romæ mœnia terruit impiger Hannibal armis*, attributed to Ennius, is too exceptionable in other respects to serve our purpose : but our

our recollection affords us a modern line, which will exactly correspond with that of Klopstock.

Projicit Ætna latente et anhelus ab igne Vefevus.

Tonender fangen verborgen von bnfchen med liebender klage.

We believe it will be readily granted that fuch a verfe is inadmissible in Latin heroic poetry; we doubt whether fuch an arrangement of acute accents will be found in Greek, but have not leisure to afcertain the fact. Two or three lines have been pointed out to us in the *Odyffey*, where the firft fyllable of each foot has either an acute or circumflex; but they commence with fpondees and the accentual cadence is alfo broken by a ftop. We do not, however, pretend to give an opinion on this fubject, which we have not fufficiently investigated. The firft line that will occur to every Greek fcholar, is

Αὐτίς ἴπυτα πίδονδι κυλίνδετο λάας ἀναιδής,

which we have been taught to read according to Latin accent with that moft unpleafant cadence. We beg our readers, who have probably feen a ftone bounding down the fteepelt pitch of a hill, rolling along the flope, and ftriking at laft againft fome obftacle below, to read that verfe according to its real accents; that is, ἴπυτα and πίδονδι like the Englifh word *cruelty*, and the laft fyllable of ἀναιδής like the Englifh *dace*; and they will find a remarkable inftance of what has been called imitative harmony. If it be faid, that in fo reading the verfe the quantities are falified, we muft afk whether the following Latin line is falfe in quantity; which, if the two laft words be fpoken together, will be fimilar to it.

Inde rúens per ágros nemoróſaque térra fugit éús.

Here we muft obferve, that the opinion, pretty generally receiv-
ed, that Greek hexameters, read according to their accents, would be offenfive to an Englifh ear, is erroneouſ; for lines of a different conſtruction are read by us with the fame poſition of accents, and are not offenfive. For inſtance, ὄξυ χαλεπὸν is fimilar to ακαματον πυρ and ισχυριος φως; ημετερια βελην το τειν νυμφη and απο ναν; βασιλευσει Ἀχαιων το οτριο οτ χει οτ ογδοι δι-της, and fo forth. "Αναξ, φρονειν γαρ οι ταχεις εν ασφαλεις would have the fame cadence that we now give to Διδραχ' ελοιμην εν ακαιτια μι δραν. On the other hand, we ſhould get rid of that peculiarly offenfive form of the hexameter, which, if ever, will certainly be rarely found according to Greek accentuation: and it is remarkable, that the jingling cadence, which was banifhed by the Roman poets, occurs frequently, according to our improper mode of reading Greek, eſpecially where the metre is very dactylic. Such verſes as Ναιδι δ' ἄλλαδι γαῖα φερίσθιος ἔπειτ' ἀνδρῶν in Apollonius Rhodius, or Πολλὰ δ' ἀντατα πάντα τα πέμποντες δόχματ' ἄλδοι in Homer, are actually ludicrous as we read

them; but, spoken according to their accents, they assume a very different character. We do not at present assert that that cadence was absolutely excluded in Greek: it is sufficient for our argument, that at least it occurred rarely, and that the structure of the hexameters did not naturally lead to it: consequently, those who would have transplanted them into another language, should not have sought, but avoided it.

It is impossible, however, to conceive a greater error than that of the Germans, in fancying that their metre admitted greater variety than the verse of Homer. If the Greek hexameter has a fault, it is, that its accentual cadence is perhaps too irregular. It is in general too various to satisfy an English ear, which is accustomed to more regular recurrence of accents, and pays less attention to the quantity of syllables. It was too various to satisfy the Romans; and, on that account, in this, as in other metres which they adopted from the Greeks, they restricted the cadence by certain rules, which we think have never been properly considered. The invariable rule, by which all Latin words were accented, did of itself limit the number of accentual combinations, which certain combinations of quantities could produce: but that was not sufficient. In hexameters the poets of the Augustan age adopted as a general rule, from which they occasionally departed, that the accent should fall on the first syllable of the two last feet, which was matter of indifference to the Greeks. There are, according to our recollection, but three lines in the first Georgic ending like *stérilis dominántur avéna*, where four unaccented syllables stand together before the two last feet; although the form of *liquefactaque vólvere sáxa*, similar in quantity, occurs thirteen or fourteen times. We have already said that Virgil never permitted the accents to fall on the first syllable of every foot. When he wished to produce a rapid dactylic verse, he used three accents on short syllables.

Quadrupedante pútre[m] rápido quátit ungula campum.

In alcaics and asclepiads, the Romans did not suffer three unaccented syllables to fall together, unless comprised in one word; except in the first part of the verse, where an aberration of accent was permitted; as in English we allow, *Spirits odórous breathe*, and *Múrmuring and with him fled*, &c.; though, except at the beginning of a verse or sentence, this aberration would be offensive. The Latins permitted this at the commencement of the line, as *Méntem sacerdotum* and *Perrúpit Acherónta*; but in any other part of the verse it could not be suffered. The only instance we recollect is, *Méntemque lymphátam Mareótico*; and there, it is clear, that Horace intended to throw the metre out of its regular form, to express the madness produced by intoxication; as in the

second

second ode of the 4th book he altered the usual cadence of the sapphic to express the dithyrambic style of Pindar. It appears to us that the Romans attended very much to accentual cadence. In the third verse of the alcaic stanza, it was a rule, almost invariable, that an accent should fall on the fifth or sixth syllable: only three lines in Horace, ending with a quadrisyllable, offend against it. The fact has been formerly observed, but not the reason. Another peculiarity in this verse has perhaps escaped notice; that the two first feet cannot be separated in two dissyllables, or comprised in a quadrisyllable. The accentual laws of the dimeter and trimeter iambic admit of no exceptions, and are distinct from any rules of cæfura or of dipodia. *Et spissa nemorum cōma*, is a very common form of the glyconic verse; but *Et spissa montium cōma*, which bears the same accentual cadence, (that is, the acute on the second, fourth, and seventh), though a very just dimeter iambic as to quantity, is not a Latin verse, because it bears the cadence peculiar to the glyconic. The iambic foot is however used freely in the third place, and this form must have occurred very often, if it had not been purposely avoided: but there is not one such dimeter iambic in Horace; not one in the Senecas, though indeed they wrote but few; not one in Ausonius, who wrote many, and used them by themselves; not one in Boethius; not one in Prudentius, who wrote upwards of seventeen hundred. One instance, and only one, stood in the oldest editions of Prudentius; *Ornare nanius Numa*: but, although the principal objection to this verse had never been observed, the true reading has been restored in later editions from manuscripts; *Orare simpuvium Numa*: an ignorant transcriber, who had probably not read the sixth satire of Juvenal, substituted *nanius* for a word which he did not comprehend. On the other hand, it is worthy observation, that *Inultus ut scēbo puer* is a good cadence in the iambic, but excluded from the glyconic; for instance, *Veloces per agros canes* is not a Latin verse. No such line is to be found in Horace, in Catullus, in the glyconic chorusses of the tragedians, in Boethius, or any ancient writer that we have seen. One only similar to it occurs in Catullus, and in that the cadence is interrupted by a semicolon after the first word, which completely alters the case. In other forms, where the difference of quantity more forcibly struck the ear, the same cadence was permitted in both. The Latin catalectic iambic is governed by the same accentual laws as the Italian verse of eleven syllables; the tenth must always be accented, and either the sixth, or both the fourth and eighth. For instance, the following lines are accurate.

Così dis' ella e lagrimando tacque. Trissino.

Marisque Baiis obstrepentis urges Horace.

but, *Dis' ella così e lagrimando tacque*, and *Marisque vesane strepētis*

pénis úrges, would not be metre in either language, on account of the aberration of the accent from the fourth as well as the sixth place. The cadence of the sapphic is the same, when it divides, as usual, after the fifth syllable. It is accented on the sixth, or both fourth and eighth. *Vidimus flavum Tiberim retórtis*, and *Dexterá sacrás jaculátus árces*. When the accents are differently placed, every ear perceives that the verse is less harmonious; and Horace only admits, as an occasional variety, the accent on the fifth and seventh, or the fifth and eighth, which the Italians never use. But as the affection for the cadence above mentioned appears to have increased gradually amongst the Romans, the later poets never admitted those varieties of accent, though they used the dactyle sometimes instead of the spondee in the second foot. There is not one sapphic verse in Statius, the Chorusses, Boethius, or Prudentius, which has not the accent on the sixth, or fourth and eighth. The Latin hendecasyllable is again the same in its most usual form. *Cásto veniam óbviús léóni*, and *Tenens in grémio mea ínquit Acme*. The Italians admit occasionally the accent on the fourth and seventh, which is a form of the hendecasyllable. *Acmen Septímius suos amôres*, and *Ella a coprír la malízia amorôsa*. These are the three best forms of the hendecasyllable; but others are used, which the Italians never admit. It is observable, that of the catalectic iambics, in which so little variation is permitted, two were never used together; that the sapphics in which a little more variety is used, were broken at a longer interval by the adonic; and the hendecasyllables, which admit great variety, were used alone. The Italian verse of twelve syllables, called *sdruccolo*, is accented like the trimeter iambic ending with a polysyllable. The accents must always fall on the same places as in the catalectic.

Quid nos, quibus te víta sit supérstite. Horace.

O la, grida con, fáccia atra e bisbética. Barusaldí.

Utrumne jússi persequémur ótium. Hor.

Giunto alla sôglia del Muséo satídico. Bar.

Ut affidens implúmibus pullis avis, in Horace, is an iambic verse, because the 6th is accented; but *Ut affidens pullis avis deplumibus*, though exactly the same as to quantities, would not be a verse, on account of the wrong position of the accents. We are aware, that an objection will here be made, that this regular distribution of accents arises from the division of the line called *cæsurá*; and that if the Greeks use the same laws of *cæsurá*, the arrangement of accents in Latin trimeter iambics, must be incidental. But our doctrine is, that such lines as the Greeks would have admitted, the Romans excluded. Both objected generally to the division of verses into halves, except in particular metres where they required it: but with respect to iambics, this division, though in some cases avoid-

ed,

ed, was certainly not absolutely excluded. The Greeks objected more decidedly to the division of an iambic verse into three equal parts by a quadrifysyllable in the middle, which Horace has here admitted; but there are several instances in Greek, of the following form, which cannot be used in Latin, on account of the improper situation of the accents: not on account of any law of cæfura; for the verse may be cut into two equal parts, and the third foot may be detached from both second and fourth. *Ut affidens pullis inassuetis avis* is faulty metre; *Λίγω σ' ἐγὼ δολαφίλο- πύτην λαβῶν* is not. We conceive that the Romans were gratified by the position of the accent on the sixth, or fourth and eighth, and therefore they restricted the laws of the Greek iambic and sapphic to produce this effect; and, as far as we know, the same positions have been observed by every European nation that has written eleven-syllabled accentual verse of the even cadence.

If we have not yet sufficiently proved, that these laws were independent of any rule of cæfura, the examination of the Latin tragedies, which are supposed to have been written by three different authors, but bear the name of Seneca's tragedies, will incontrovertibly establish it. The only rule attended to by the Latin tragedians, respecting the division of words, was, that generally the two middle feet should not be detached from both the second and fifth feet. They admitted great license of quantity, using the tribrach freely for the second and fourth feet; the tribrach, spondee, anapæst, and dactyle, indiscriminately for all the odd feet, and even four short syllables for the first foot: but, in consequence of this license, they found it necessary to limit the accentual cadence more than Horace had done. Therefore, although it excluded forms which he had used with success, they established as an invariable law, that an accent should fall upon the sixth place, which was the keystone of their verse; that is, if the third foot was an iambic, spondee, or anapæst, on the last syllable of it; if a dactyle or tribrach, on the last or middle. The only instance of the contrary, in the ten tragedies, will be found in the *Thebais*, and the line is evidently corrupt, for the feet all stand distinct. 'Ponitis ferrum ocus Ac dico, et ex æquo mihi dextras datis.' Probably *æquas jam* should be substituted for *ex æquo*. Two other lines, which at first appear to oppose our system, tend to confirm it. *Nescio*, in two instances, stands as a dactyle in the third foot: the aberration of accent appearing in no other lines, it must be granted, that this was pronounced *nec scio*, or at least with the same tone as the words had before they coalesced. 'Provolvitur, nec scio quid onerato sinu Gravis unda portat,' is accurate. Yet this law excluded the following terminations, to which no other objection could be made,

and not a single instance of them occurs in the tragedies, viz. *persequemur otium*; *caprificos erutas*; *império, amorum dolis*, though *imperi, amorum doli* does occur; *intrépidus, exul, vagus*, though the form of *Sceleribus pœnas luet*, which has the same division of words, and of *quôque prohibetur magis*, which has the same quantities, occur in every page; as well as that of *conjugia despondet sibi*. All monosyllables were considered as accented. We believe, that in long words, where three unaccented syllables preceded the accent, like *confociâre, conditionibus, inverecundus*, the Romans admitted a secondary accent, as the Italians have done in words like *misuratamente*. Prudentius, who strictly observed all the accentual laws, has used *inverecundus lepor* in the trimeter iambic, which is faulty, unless a secondary accent be admitted. This license is however peculiar to him; he has used it only seven times in upwards of 2000 lines, and we know of no other such instance; his authority will not be deemed sufficient to establish it as an admissible termination. It does not occur in the tragedians.

With respect to the hexameter cæsure, we think that the Greeks and Romans differed materially in consequence of the difference of their accentuation. The form of verse, which most naturally produces the offensive cadence, is the unequal division of a dactyle in the third, without a break after the next long syllable; as, *Suadentque cadentia sidera somnum*. According to Greek accentuation, such distribution of words did not necessarily produce that cadence, and therefore it is frequent in Homer; but in Latin we think it inadmissible, unless the first foot has a short syllable accented, as in *precipitat*.

From these observations, it appears to us that the metrical rules observed in the south of Europe, were not modern inventions, but the old accentual laws of Latin verse, which survived those of quantity. The Italian short verse of the *canzoni*, is *Lydia dic per omnes* in all its accentual varieties: the Spanish verse of eight feet, used in comedies, is the dimeter iambic or glyconic ending with a disyllable in all their diversity. The proportion of quantities, by which the lines were connected, being no longer observed, it became necessary to limit the variations of the cadence. In the short lines they could bear all the old variations, except the aberration from the last proper seat; in the longer verses, it was expedient to discard the least pleasing forms: but the hexameter and pentameter were too long to produce a good effect in a language where quantity was disregarded. It remained for later poets to confound accent and quantity, and produce that barbarous hexameter, which Klopstock has brought into vogue again. We know not exactly at what period they were first introduced. The

French

French are the only nation we know that speak without any accent, pronouncing their words with a uniformity, that renders their language unfit for poetry; for, as Mr Mitford observes, where there is no variety, there can be no continued melody. This circumstance, however, rendered it impossible for them to confound accent with quantity; and consequently, when they attempted to use the hexameter of the Latins, they considered the measure of their words. According to Pasquier, the first attempt was made by Etienne Jodelle in 1553. Pasquier himself wrote some lines upon the same plan, which he has inserted in the 7th book of his *Recherches de la France*, with the following observation; 'Or ces vers par moy cy dessus recitez, representent en nostre langue les vers Grecs et Latins, dans lesquels on considere la proportion des pieds longs et brieves seulement.' We quote his first four lines, as a specimen of the French hexameter and pentameter.

' Rien ne me plait si bon de te chanter et servir et orner ;
 Rien ne te plait, mon bien, rien ne te plait que ma mort.
 Plus je requiers et plus je me tiens seur d'estre refuse,
 Et ce refus pourtant point ne me semble refus.'

He has taken considerable license with respect to the word *et*; *servir* is perhaps a spondee.

Dismissing the hexameter, we will briefly explain what we conceive to be the laws of English accent and versification, which have perhaps never been rightly considered. The accentuation of words exceeding one syllable, can only be learned by habit, on account of its great irregularity. Dr Johnson has given twenty rules to assist foreigners, but he allows that these have their exceptions. This however is almost invariable, that every word has some one syllable prominently accented; perhaps *into* has not. Monosyllables stand nearly in the same predicament as Greek words accented on the last; which alone, or followed by a pause, bore the acute; but, followed by other words, lost their accent and remained grave, being * spoken with French monotony. There is, however, this difference, that when several English monosyllables occur together, the most important, and those only, bear the acute. If a monosyllabic adjective and substantive are joined, the substantive has the acute, and the adjective the grave, unless the adjective be placed in antithesis, in which case the reverse happens. This law was observed by all our best poets; but Dr Darwin and other modern

* The metrical use of the expressed grave in the *σίχαι πολιτικοί*, however, seems to indicate that the oxytons were not spoken with complete monotony, though probably less strongly accented, than when the acute was expressed.

modern writers have most improperly neglected it, and even affected the reverse. A monosyllabic adjective, however important, cannot have the acute before a substantive accented on the first syllable; and the reason is, that two syllables with the acute cannot fall together, unless so disjoined as to admit a pause between them: for instance, Pope might have been permitted to write, instead of *more safe*, 'Nor is Paul's church *sāfer* than Paul's church-yard;' because the voice can pause between the words sufficiently to give the acute to *church*; but he could not have written, *More safe Paul's high steeple than Paul's church-yard*, because the acute could not be given to *high* in that situation. In verses, particularly of the triple cadence, (that is, where the acute falls on every third syllable), a license has been frequently used of taking off the acute from unimportant dissyllables, and speaking them grave, as if they formed a part of the ensuing word.

Such being the system of accentuation in Teutonic languages, arising necessarily from the number of their important monosyllables, the laws of our heroic and dramatic verse are nearly similar to those of the Italians. *The tenth syllable shall be accented*; but the accent may be occasionally drawn back to the eighth. *The sixth shall be accented, or both fourth and eighth*: the only exception to this rule is, when the second and eighth are accented, and no other accent intervenes. These are the invariable and fundamental rules that regulate our metre: if two accents are frequently thrown together, (which, as we have observed, cannot be done unless the words admit a pause of the voice), the effect will be unpleasant; but in every other way the metre should be varied as much as possible; for, if the accents always fall on the alternate syllables, it will want melody, to which variety is essential. It is observable, that the Greeks and Romans generally agreed in never throwing back the accent beyond one long and one short syllable; whereas, one of the greatest faults in the English language is the removal of it beyond a long and two short, and sometimes beyond four short syllables, as in differently, necessarily. We quote a few lines from Pope, with the accents and quantities marked.

Pride, énvý, málice, ágainst Drýdén rōse,
 ìn várioús shāpes, of páraons, crítics, beáus;
 Bút sēse sūrviv'd wĥén mérrý jéstō wēre pāt,
 Fōr rīsing mérit wīll buoý úp át lāst.

Might

Might hē rēturn ānd blēss ōnce mōre ōur ēyes,
 Nēw Bläckmōres ānd nēw Mīlbōurns wōuld ārise.
 Nāy, shōuld grēat Hōmēr līft hīs āwfūl hēad,

Zōllūs āgāin wōuld stārt ūp frōm thē dēad.

In this passage, the last line is read with some ambiguity, because it is doubtful whether *start* or *up* are most important, and which should take the acute accent. The metre requires it to be thrown on *start*; because if *up*, which is the seventh, takes the acute, both sixth and eighth remain grave, and the metre fails: but in the first line, the sixth syllable is short and unaccented; yet the acute falling on the fourth and eighth in the words *malice* and *Dryden*, the metre is perfectly good. Words which never can be accented, like *to*, *the*, *of*, &c. may occupy the sixth place, if the fourth and eighth have the acute; and *vice versa*; but otherwise not. English verse has however one peculiarity, which serves to increase the dignity of the line, as elisions do in other languages. The difficulty of sounding two acutes together, makes the accents fall generally on alternate syllables, which may be called their proper seats: and the verse is naturally divided into five accentual feet; in any, or all of which, an additional unaccented syllable may be inserted, which shall not be reckoned in scanning the verse; but such syllables, should not be inserted between two, which, if separated, would both bear the acute. For instance, the following lines are accurate;

And mā|ny an ām|orous, mā|ny a hūm|orous lāy.

The impē|rial ēn|sign, which|full|high|advānced.

But we are of opinion, that several verses, even in Pope, are faulty; because, by the improper position of the additional syllable, two accents meet in the same foot, which is improper, and could not otherwise happen without an intervening pause.

Hēaven's whōle | foundā|tions to | thēir cēn|tre nōd.

We are aware, that the word *heaven* has been very universally used as a monosyllable; a practice against which we protest, because *v* cannot be spoken with a final liquid, as in *heaven*, *devil*, &c. without the intervention of a vowel, however short. The same is the case with the word *prison*, which Dr Darwin has on the other hand improperly used as a dissyllable in the latter part of a verse. We think that a middle course should be steered. Dionysius has properly explained, that amongst long syllables, some are longer than others, amongst short ones some shorter, on account of the nature of the vowel and the number of consonants;

sonants; and it appears to us, that such final syllables are of the shortest species, and that they have not sufficient strength to support the half of an accentual foot, unless, perhaps, near the beginning of a verse; and therefore, they should always be used as superfluous syllables, but not so placed as to throw two accents in the same foot. *All heaven's foundations* would be good metre, because the adjective remains grave before its accented substantive. The following line from Milton, though at first sight it may appear similar, is in fact very different.

Fallen | Chérub, | to be weak | is miserable.

It divides like,

Irre|cover|ably dárk, | tótal | eclipse,
in which there is an aberration of the accent from its proper seat in every foot, except the third and the last; but Pope's line cannot be so scanned, because in that case, there would be an aberration in the second and third foot, which is not permissible. It must be observed, that in verse of the triple cadence, *heaven* and *prism* should be always used like other disyllables; because although the triple is allowed to mix with the even cadence, no cadence can be used beyond the triple; and three unaccented syllables with one accented, cannot be used as an accentual foot: on which account, no additional syllables or aberration of accent can be permitted in that metre; but in some very long words a secondary accent is employed. This metre, having been frequently used for ludicrous subjects, has been written carelessly: its construction, however, requires great attention; for if the license of making disyllables grave be used injudiciously, or the accent thrown on an unimportant, and taken off an important monosyllable, the verse will claudicate. When two accented syllables met, the Romans appear to have used the same optional liberty, that is taken in the Teutonic languages, where monosyllables abound: they frequently threw the essential accent on a monosyllable, in which case, the syllable following must have remained grave; as in *pér mare et terras fúgit*.

Thus much with respect to the accentual laws of English verse: but we further assert, that there is a clear difference between accent and quantity in the English language; and that, independent of accent, quantity neither is, nor ought to be entirely disregarded in our versification. Every ear accustomed to Latin sapphics, would observe the peculiar structure of the following lines, and object to them in English blank verse; yet are they in every respect such as frequently occur, excepting that the words all follow the Latin rule of accentuation, and that the arrangement of quantities as well as accents, corresponds with that in a sapphic stanza.

ō līquid streamlēts tō thē main rētūrnīng ;

Mūrmūring wātērs, thāt ādown thē mountān

Rūsh ūnōbstrūctēd ; nēvēr īn thē ōcean

Hōpe tō bē trānquil !

A good writer (though he might use the same combination of accents) would naturally shun such coincidence of temporal metre ; not as being inharmonious, but as bearing a peculiar character, which should be avoided in English blank verse. It will appear by the following lines, which have the very same accentuation and the same cæsura, that a difference of quantities will destroy the resemblance to Latin sapphics.

The headlong torrent from its native caverns

Bursting resistless, with destructive fury

Roars through the valley, wailing with its deluge

Forests and hamlets.

The reason that our verse requires no established laws of quantity, is, that a great majority of vowels in our words are long by nature or position ; many of our lines are spondaic ; most have 7, 8, or 9, long syllables ; and consequently variety of quantity is rather to be sought for than restricted. In Greek and Latin, rules were necessary to prevent many short syllables falling together : in modern languages they are so rare, that the judgement of the poet may be trusted ; but if he uses the license unskillfully, his lines will be weak. In the *Henriade*, ‘ *Qui rassemblée sous lui la curiosité,* ’ is a miserable verse on account of the concurrence of five short syllables near the end ; but many such are not likely to occur.

The mechanism of French verse, which Mr Mitford declares himself unable to comprehend, appears to us very simple. Except an occasional circumflex, the French do not use accent, and consequently it has no share in their versification ; on which account, their poetry affords little gratification to other European nations. A Spanish writer, who seems to have been endowed with good taste and judgement, says, that its monotony can only please ‘ *oidos mas que Batavos.* ’ This monotony prevents their using verse of many syllables ; their alexandrine must be divided in the middle, with the same pause that we require at the end of an heroic verse, (where we should be dissatisfied with an adjective, whose substantive commenced the next line), and of course it must be considered as two verses. Long syllables prevail in French as well as English ; and therefore, it was deemed sufficient

sufficient to regulate the quantity of the most important in each hemistich, which must be always long; and the art of their versification consists in preserving a sufficient pause in the middle, and avoiding a frequent concurrence of short syllables. The monotony of their language renders it necessary for them to pay considerable attention to their rhymes, which must be alternately single and double; and if the lines end with long vowels, the preceding consonants must correspond. The mute *e* after a long vowel is considered as a syllable in the rhyme; but in every other situation it must be elided by a word commencing with a vowel, which is not necessary when it follows a consonant. The French have no final short syllables without the vowel *e*, which is the short *eu*. Mr Mitford has asserted, (p. 285. & 6.), that there is no regular disposition of either quantities or accents in French verse: if he will examine the sixth syllable of each hemistich, he will find it as invariably long as the 13th of the line is short. Nor is it singular that such regulations should give a peculiar character very different from that of prose: the Italians and Spaniards can produce excellent metre of 7 or 8 syllables by one invariable accent. Martelli attempted to write dramatic verse in imitation of the French, by doubling the Italian line of 7 syllables.

‘Non tanto il sol s’ allégra | in questi nuovi albóri
 Al garrir degli augelli | al ridere de’ fióri,
 Quant’ io gioisco, o figlia, | nel ritrovasti in viso
 Con la solita páce | quel solito sorriso.’

The difference of male and female verse is made by elision in the middle. This metre was not, however, imported from France, as some Italian writers have imagined. Tiraboschi quotes from a Milanese poet of the 13th century, the following uncouth lines.

Fra Bon Vexin da Ríva | che sta in Borgo Legniáno
 D’le cortescie da déscho | ne disette primáno, &c.

Mr Mitford, however versed in other languages, appears to be unacquainted with the Oriental and Celtic; but he has thought it expedient to write a short chapter on Oriental and Celtic versification. Having only to state upon this subject, that he *understands the mechanism of their verse is accentual*, it was necessary to fill the chapter with other matter; and we find in it extraordinary and unsupported assertions on a very intricate subject, which is not necessarily connected with that of Mr Mitford’s work,—namely, the origin and affinities of different languages. This is a point which perhaps can never be decided; but it is certain that it can only be illustrated by an intimate acquaintance with those several tongues, and with the earliest records and traditional history of the people who used them. Mr Mitford, however, who appears to have

have learned no Oriental, no Celtic, no Slavonic language, nor (as far as we can collect from his book) German, or any northern tongue, disposes of every dialect between the capital of the Great Mogul and the Atlantic, in the most brief and authoritative manner, by dividing them into two families. (p. 346.) He appears never to have heard of the Hungarian and Lappish, which are reckoned very distinct from other European languages. On their similarity a curious work has been published in Sweden by Sajnowic. We also recommend to the learned author the perusal of a short treatise, translated from the French by Mr Tooke, and augmented with his own observations, on the affinity of Latin and Slavonic; tending to prove, not that Greek and Slavonic were closely allied, as Mr Mitford has assumed, but that Latin arose from a mixture of the two. Perhaps it may be truly asserted, that all languages have some points of affinity; and he might as well have united his two branches; for the Greek has perhaps more connexion with the Celtic than the Teutonic tongues; and he himself appears to insinuate, that the Welsh harp was of Greek extraction. To the distinction made between Welsh music and the Scottish airs, which he says were begotten on the bleak Highlands by the bagpipe, and consequently admitted no change of key, we must take three exceptions; that some Scotch airs have a change of key; that the bagpipe may be played in a major and minor key, and admits the same extent as the hautboy; and that the harp was more ancient in the Highlands than the bagpipe. It was perhaps used by all Celtic nations. With respect to Gaelic verse, it is certainly accentual; but the recurrence of accents is much more irregular than in English metre, having been regulated by the music to which it was adapted; and its rhyme consists of similar accented vowels, without regarding the consonants. Mr Mitford only mentions Icelandic poetry, to express his disbelief of the variety of metres to which Wormius has alluded; and he says, that 'it is only for the notice with which such critics as Mr Ellis and the Bishop of Dromore have honoured it, that I can have any respect for Wormius's discovery of 136 Icelandic measures.' Mr Ellis appears to have used the word *discovered* inadvertently. The expression in Wormius is, 'Rythmorum infinita ferè sunt genera; vulgo tamen usitatorum centum triginta sex esse putantur.' He explains one sort of Icelandic metre, and gives the following Latin words, as an example of it.

ChriSTus Caput noSTrum

CoRONet te bONis.

The commencement of Harold's song in *Knytinga saga*, will shew that he was not inaccurate.

SneiD

SneiD fyrer Sikiley viDa.

SUD; varum tha prVDir.

We choose two specimens from the various Icelandic metres we have met with, which will serve to show, that, by various length of lines, cæsuras, alliterations, final rhymes, corresponding letters in the middle of words, and disposition of verses in stanza, 136 varieties might be easily produced. The Icelanders frequently used different metres in the same poem: § marks the cæsura.

Lvðvinn prvðv § Liçt so batt,

Leitar sveit að hefna bratt.

Gilldum hilldar § Grymur serk,

Gramr er tamr a snilldaverk.—*Karl of Grymur.*

And in the same poem,

Harek tekur að § Hilia thiod med § Hordu stole,

Hialmar, bryniur, § Hrummers male,

Hilldar skey, og Gohnirs bale.

We trust that these instances will remove all scepticism on this subject.

Mr Mitford has devoted a chapter to a project for increasing the *euphony* of the English language, which might perhaps have been well omitted. It is certainly capable of improvement; but such projects must always be deemed chimerical. It has been said of many countries, (particularly Portugal), that their language would be excellent, if the people knew how to pronounce it; and perhaps Portuguese euphony might be greatly increased by referring their rules of pronunciation to a committee of foreigners; but we do not think the natives of Lisbon would unite in a vote of thanks on the production of their report.

Before we conclude this article, we will briefly give the sum of our arguments concerning the nature of Greek and Latin accents, which, we are persuaded, those who are most bigotted to a contrary system, will not easily answer to their own satisfaction. We find, that in English, Italian, and other languages, the regular disposition of prominent syllables in certain places constitutes metre: we find that, in Latin verse of the same length, the syllables, which bore the acute accent, generally fell in the same places; and that in some metres they were invariably fixed there. We find, that where greater liberties of quantity were admitted in the iambic, that the acute accent was never permitted to wander from the sixth seat; and that several forms of verse (to which no other objection whatsoever could be made) were abandoned, to preserve uniformly that situation of the acute accent: and we also know, that, in modern verse, we can permit an irregular disposition of all the prominent syllables, except the last,

if

if that sixth place be filled by one. Further, we know that the Greek and Latin acute accents were precisely similar to each other; that they were described in the same manner; and that no natural difference was stated to have at any period existed between them. We find that the Greeks wrote verses of a certain length, which had no regularity but the disposition of accents in the very places which, in our verse, are the natural seats of our prominent syllables. From these premises, we draw this conclusion, that the accented syllables of the Greeks and Romans did produce the same metrical effect that the prominent syllables (which have always been called accented) in modern languages do produce; and we know that the modern Greeks pronounce them in the same manner. Mr Primatt displayed much learning in his treatise on the subject of Greek accents; but he was afraid of handling his own weapons; and, directing his attacks against prose only, suffered himself to be defeated by poetry. The best work on the subject appeared in 1796, and has been attributed to a learned prelate; but, however skilfully he wielded the exterminating sword against Latin accentuation in the Greek language, it fell from his hand at the close of all his labour; and subscribing, through needless timidity, to a theory supported by no evidence, he suffered the spectres of Latin accents to rise again; and posit themselves on the last feet of hexameters.

We have thus attempted to solve that gordian knot of accent and quantity, which seems to have bound the understandings of many learned men; and, as it is very difficult to express by written definitions, the varieties of sound, in labouring to render ourselves distinctly intelligible, we are aware that we may have appeared prolix and tedious.

Having trespassed perhaps too long on the attention of our readers, by the discussion of this wide and intricate subject; opposing some statements in which we thought Mr Mitford mistaken; illustrating others which may not have been placed in the proper light; and adducing new matter which to us appeared important; we are under the necessity of dismissing many parts of his learned work, without commenting on them, or giving them the particular praise which they deserve. We regret, however, that Mr Mitford's observations are communicated to the public with so little ornament of diction: Sentences like the following are inferior to the style of polite conversation.

* Aware of the hazard of criticizing language, but especially a foreign language, the risk of oneself mistaking, and the risk of failing to make oneself understood by others, for explanation of the hypothesis ventured, in the first article of the fifteenth section, concerning the loss

of accent in the French language, I desire to refer to example within the English language,' p. 431. And shortly after, 'The difficulties of the passage, for turning into French,' &c.

We are far from requiring high-wrought expression, bold imagery, or sonorous periods, in a work of this nature; but we think that he, who proposes schemes for improving the euphony of the English language, would be heard with more deference, if he were studious of writing that language, as it now exists, with propriety and elegance. The work has, however, intrinsic merit, which will compensate the faults of style; and we think it our duty to recommend it to the attention of all who take any interest in such speculations.

ART. XI. *Principi di Statici per i Tetti, per i Ponti, e per le Volti.* Di Paolo de Langes.

From Memorie de Mat. e Fis. de la Societa Italiana.
1803. Vol. X. Part I. p. 183.

It was remarked by an eminent mathematician, that while we give ourselves infinite trouble to pursue investigations relating to the motions and masses of bodies which move at immeasurable distances from our planet, we have never thought of determining the forces necessary to prevent the roofs of our houses from falling on our heads. To accomplish this investigation, various methods have been employed since his time; and the author of the very elegant tract now before us begins by describing two of these, and shewing their defects.

The first was that of the ordinary composition and resolution of forces. By very easy steps, this method leads us to an equation between the sine and cosine of a given angle of inclination and the pressure exerted by a beam resting diagonally between two given planes. If ϕ is the angle of its inclination to the horizontal plane, a = its length, b = the distance of its centre of gravity from the upper extremity, and P = its whole weight, then the force of the other extremity in an horizontal direction is equal to $\frac{P(a-b)\cos.\phi}{a\sin.\phi}$. There were other values of this force deduced from different principles. It was given either as

$$\left(\frac{P}{a}(a-b)\sin.\phi.\cos.\phi\right), \text{ or as } (P\sin.\phi.\cos.\phi)$$

Upon these results, our author observes, that when the beam is horizontal, the first formula gives *infinity* for the value of its horizontal force; and when the beam is vertical, we have, by the same

same solution, nothing for the value of the horizontal force. But the other two formulas, he adds, give *nothing* for the value of that force in both these cases; and one of them gives the solution independent of the position of the centre of gravity. This mode of solving the problem takes into view, as it ought to do, the distance of the centre of gravity from the extremity of the diagonal beam, and is such as to give the value of the horizontal pressure equal to nothing in each of the extreme cases, both when the beam is placed at right angles to the horizontal plane, and when it coincides with that plane.

The form of the question here alluded to, is the simplest case of this problem. It is the only case, as we shall afterwards see, which our author discusses; but it is certainly the most general and fundamental, as well as the easiest to be investigated. It is treated with great neatness and elegance, and with geometrical rigour, in this paper, which we recommend as an excellent introduction to the great subject of arches.

The first case of the problem in question is thus enunciated. Two planes being given, at right angles to each other, and a rod or beam of any shape, but of a given weight and length, being placed between the planes at any inclination, it is required to find the pressure exerted by the inferior extremity of the beam in an horizontal direction. Of this problem, our author gives a geometrical solution of great elegance by means of the ellipse, having previously demonstrated the following property of that curve; that if from a point in its transverse axis, a straight line be inclined so that the curve and the point intercept a portion equal to half the conjugate, the portion intercepted between the conjugate and the curve is equal to the semitransverse. He then adds an analytical solution of the problem. If ϕ is the angle of the beam's inclination to the horizon, P its weight, m and n the two portions of its length on each side of its centre of gravity, then the horizontal pressure of the lower extremity is equal to $P \left(\frac{m n \sin. \phi. \cos. \phi}{m^2 \sin.^2 \phi + n^2 \cos.^2 \phi} \right)$; an expression certainly of very great neatness and symmetry, and which is found to agree exactly with solutions of less general cases drawn from other methods. He adds two investigations to discover the position of the beam's centre of gravity which gives the greatest possible pressure at a given angle of inclination, and to discover the angle of inclination which gives the same *maximum* at a given position of the beam's centre of gravity. The ordinary method of *maxima* and *minima*, applied to the above formula, gives, for the first case, an expression from whence we may deduce the following simple solution:—that the distance between the centre and the vertical plane must be a

B b 2

fourth;

fourth, proportional to the length of the beam, the cosine of its inclination, and the sum of the sine and cosine of inclination. For the solution of the second case, let a = the beam's length, and b = its given superior segment, the height of the superior extremity above the horizontal plane must be $a \sqrt{\frac{(a-b)^3}{(a-b)^3 + b^2(a-b)}}$, in order that the pressure may be the greatest possible. This expression, translated into geometrical language (as we translated the former), shews that the square of the height must be a fourth proportional to the square of the beam's length, the cube of its inferior segment, and the sum of that cube, and the parallelopiped, whose base is the square of the superior segment, and altitude the inferior segment. From these proportions, it is easy to conclude, that if the beam is inclined at an angle of 45° , the horizontal pressure is a *maximum* when the centre of gravity falls in the middle of the beam, and conversely.

Having considered the simple case, of one beam pressing on two planes at right angles to each other, our author proceeds to consider, how his results are modified by the combination of different beams, which, it may be remarked, is the ordinary case in practice. He shews, by considerations which must immediately present themselves to those who attend to the foregoing analysis, that when two equal beams lean against each other, they are exactly to each other as to the verticle plane in the cases above solved. In like manner, the solution of the case in which three beams are connected together, the one lying over the other horizontally, is reduced to a variety of the first case; and when four beams are combined, two meeting in a point above, and resting upon the other two, inclined at any acute angle to the horizon, he shews that when the two latter are attached by a chain passing horizontally across the interval, the case is reducible to the original and general problem, being a variety of the last hypothesis. But when four beams are thus combined, and no connection is made between the two inferior ones at their upper extremities, the solution of the problem becomes much more intricate. This will be apparent if we consider that all the former solutions depend upon the discovered nature of the trajectory, which the centre of gravity of the beam describes, when it descends freely in the angle of two planes vertical to each other. This is well known to be an elliptical arch; and, consequently, the solution of the problem is effected by the application of that curve's obvious properties. But in the case of four beams, the two highest of which meet and rest on the two lowest with their other extremities, several curves must be discovered, in which the centres

centres of gravity of each pair of beams and the juncture of the two severally move. One curve must be found for the trajectory of the centres of the two upper beams, another for the trajectory of the centres of the lower beams, and a third for the trajectory of the mutual joinings of the two beams on each side. Our author has not thought proper to make any attempt to discover these three curves; but he limits the problem in different ways in order to simplify it, and to facilitate an approximation to the solution. He first supposes the lower beam to be stopped on the horizontal plane, by an obstacle at a given point; then it is clear that its centre of gravity gyrates in a circle, whose radius is given. Still the trajectory of the upper beam's centre remains to be found: he supposes it to be elliptical, which it is nearly, when the angle of the upper beam's inclination to the horizon is very small. This case, therefore, is resolved into the cases formerly investigated. He then takes the case of the lower beam standing fixed in the perpendicular; and in this hypothesis, also, the centre of the upper beam gyrates in an elliptical arch when the angle of its horizontal inclination is small. These are obviously the simplest cases; the latter is that of a roof supported by two pillars or pilasters, but very flat, and of the kind known by the name of '*Tetti alla Mansarda.*' Such roofs are by far the most elegant; they are universally employed all over Italy, both for the coverings of useful and of ornamental buildings. They are the roofs found in all ancient temples, and other structures of the Greek and Roman ages. But they are obviously adapted only to a climate where little or no snow falls. In the northern countries of Europe, the roofs assume a very different appearance: they are built very nearly in the vertical line: instead of two beams resting on the upright pillars or walls at small horizontal angles, we there find four, six, and eight beams, joined, or little separated at the top, and inclined to one another and to the columns or walls, in directions which deviate but little from the perpendicular. To such cases, the solution, or rather the rough approximation of the Italian mathematician, does not at all apply; and as such cases were evidently within the scope of his general question, and presented themselves to his observation in the course of his investigations, it may be thought that he was bound to furnish a solution of them. Instead of this, he does not even state how their examination is to be carried on. He contents himself with remarking, that they are extremely intricate; and immediately leaves the subject. We shall offer a few strictures upon those cases, and point out the general method of resolving them.

Our author has certainly been too easily alarmed by the appearance

pearance of their difficulties at a distance, and by not attending to the steps which lead to the introduction of the elliptical trajectory, in the branches preliminary to his own investigations of the simple cases. He seems to have thought that the ellipse was discovered to be the trajectory of the beam's centre of gravity, when it moves in the angle of two perpendiculars, in consequence of some property peculiar to the centre of gravity. On the contrary, this is a proposition derived from the investigation of a very general problem of inclinations. If it is required to incline a given straight line in a given angle, so that another straight line given in position, shall cut the line given in magnitude in a given point; we know that this problem can be solved by the ancient geometrical analysis. But when there is no straight line given in position, the problem becomes indeterminate or local; and the given point in the straight line given in magnitude, is always in an ellipse which may be found. Let a = the length of the given line, b = its superior segment, consequently $a - b$ = its other part, y = the perpendicular drawn from the given point to one of the given lines, and x = the perpendicular drawn from the same point to the other line. By similar triangles, we have $b : a - b :: x$ to the segment intercepted between the perpendicular y , and the line to be inclined. This segment is therefore equal to $\frac{x}{b} (a - b)$; and (by the property of the right-angled

triangle) $(a - b)^2 = \frac{x^2}{b^2} (a - b)^2 + y^2$, or $y^2 = \frac{(a - b)^2}{b^2} \times (b^2 - x^2)$,

an equation to the ellipse, whose transverse axis is equal to twice $(a - b)$, and whose conjugate axis is equal to twice b . Which is the very proposition, including the lemma, by whose assistance the author's solutions are accomplished. And therefore it is evident that this method of solving the problem depends on no property of the beam's centre of gravity, but solely on the datum of any point in the length of the beam.

We shall now suppose that it is required to find the pressure of the flanting sides of the roof of a temple, supported by upright pillars or pilasters. The problem is reduced to this. To find the curve line in which the centre of gravity of one of the flanting beams moves, while its lower extremity gyrates with the pillar's upper end in a circle, and the upper extremity moves along a vertical plane; or, which is the same thing, to find the locus of a given point in a straight line given in magnitude, one end of which is carried along a straight line given in position, and the other along the circumference of a given circle. This is one of the cases supposed by our author to be of too intricate a nature to justify

justify him in attempting its investigation. To us it does by no means appear of so inaccessible a nature.

Let b , and $(a - b)$, be the segments of the given straight line as before, r = the under beam or pillar, that is, the radius of the given circle, m = its distance, when vertical from the vertical line given in position, y = the perpendicular drawn from the given point in the moving line to the tangent of the circle, which is perpendicular to the given vertical line, x = the portion of that tangent which y and the given vertical intercept. Then, by similar triangles, we have $b : a - b :: x$ to the part of the tangent intercepted between y , and a perpendicular drawn from the intersection of the given circle and the moving line. This portion is therefore equal to $\frac{x}{b} (a - b)$; and the portion intercepted between the point of contact and the last mentioned perpendicular is equal to $x - m + \frac{x}{b} (a - b)$. But by the property of the circle, the square of this portion is equal to the difference between the squares of the radius, and of a portion of the diameter intercepted between the centre and the vertical cord, equal to twice the above portion of the tangent. Therefore this portion is equal to

$\sqrt{r^2 - \left(x - m + \frac{x}{b} (a - b)\right)^2}$; and the perpendicular drawn from the moving point to the above vertical cord, is equal to $y + r - \sqrt{r^2 - \left(x - m + \frac{x}{b} (a - b)\right)^2}$, the square of which quantity (by the property of right-angled triangles) is equal to the difference between the squares of the segment $(a - b)$ of the given line, and the intercepted portion of the tangent $x - m + \frac{x}{b} (a - b)$.

We obtain therefore the following equation between x and y .

$$\begin{aligned} (a - b)^2 &= \left(x - m + \frac{x}{b} (a - b)\right)^2 + \\ &\quad \left(y + r - \sqrt{r^2 - \left(x - m + \frac{x}{b} (a - b)\right)^2}\right)^2; \\ \text{or } y &= \sqrt{(a - b)^2 - \left(x - m + \frac{x}{b} (a - b)\right)^2} \\ &\quad - r + \sqrt{r^2 - \left(x - m + \frac{x}{b} (a - b)\right)^2}; \\ \text{or, finally, } b y &= + \sqrt{b^2 (a - b)^2 + (b m - a x)^2} \\ &\quad + \sqrt{b^2 r^2 + (b m - a x)^2} - b r. \end{aligned}$$

This curve has one singular circumstance attending its connexion with the problem in question. In the general, it is a curve of the fourth order. But in the particular case of the inferior beam or pillar being equal to one of the upper beam's segments, it becomes a conic section; for then we have $r = a - b$; and the equation becomes $by = 2\sqrt{b^2 r^2 + (bm - ax)^2} - br$; a common quadratic equation, denoting an hyperbola, which may be easily constructed. The above solution, however, is general for all cases, and gives the method of calculating the horizontal pressure, whenever the beams rest freely upon vertical supports, that is, upon pillars fixed at their bases, but turning freely round them. By similar means, we may obtain solutions of the other cases, the problem being always reducible to the method of inclinations. And when the curve in which the extremity of the pillar or inferior beam moves is algebraical, the curve in which the centre of the upper beam moves is likewise algebraical: when the former is transcendental, the latter is so too. The same kind of solution may be extended still farther. For if, instead of a pillar or beam, we substitute a wheel or roller (and this is a case of frequent occurrence in practice), the point in which the upper beam meets this rest, moves in a cycloid; and we may, by working as above, easily obtain the line in which the centre of gravity of the upper beam moves. If we mistake not, this trajectory is in such a case another cycloid, the evolute of the former. But we shall not enlarge farther upon this subject. Enough has been said to prove how unnecessary the author's apprehensions were of the difficulties in which the inquiry would involve him. We must however add, before quitting this part of the subject, that he seems to have been guilty of an oversight in one of his limitations. He supposes the lower beam to be stopped by an obstacle, in order to simplify the investigation, by taking away the calculation that relates to this lower beam's horizontal pressure. Now, the very object of the inquiry is to find the strength or power of this obstacle: for, to say that it stops the horizontal movement of the beam, is exactly saying that a force has been found equal and opposite to the beam's horizontal pressure. What renders such an assumption the more exceptionable is, that in all practical cases the obstacle is the very point in view. It is the aim of our calculations.

The memoir now before us began with remarks upon the inefficacy of the ordinary doctrines of dynamics to solve the statical problem under consideration. It concludes with farther illustrations of the same topic. He deduces, from the formulas obtained by his own method, a value of \int , that is, the weight required to counteract

counteract the horizontal pressure, by being attached to a cord which passes over a pulley, and is fixed to the lower end of the beam. He takes, of course, the simple case of a beam between two planes at right angles to each other, this being in fact the only one which he has resolved. According to his method, then, putting a = the length of the beam, b = its upper segment, P = its weight, and x = the horizontal line drawn from its centre

to the vertical plane, we have
$$\int = \frac{P (a - b) b x \sqrt{b^2 - x^2}}{b^2 (b^2 - x^2) + x^2 (a - b)^2}.$$

This is easily deduced from the analysis formerly described by the differential calculus, and then exterminating the fluxionary expressions. From the common method of composition and resolution of forces results the equation
$$\int = \frac{P x (a - b)}{a \sqrt{b^2 - x^2}}.$$
 And our

author infers from thence, that this method is quite inadequate to the general solution of the problem. The first mentioned formula being obtained from the theory of *vires viva*, or actions, as he terms it, only by his method of operating, he extends his inference to that mode of solution also.

Now we propose to demonstrate, that these results, so far from being at variance with each other, lead us, when compared together, to a very happy illustration of the whole solution. In order to shew this, put the two values of \int above deduced

equal to each other, and we have the equation
$$\frac{P (a - b) x}{a \sqrt{b^2 - x^2}} =$$

$$\frac{P (a - b) b x \sqrt{b^2 - x^2}}{b^2 (b^2 - x^2) + x^2 (a - b)^2};$$
 or, $b^2 (b^2 - x^2) + x^2 (a - b)^2 =$

$a b (b^2 - x^2);$ and, extending this equation, we get $b^4 + a^2 x^2 -$

$a b x^2 = a b^3;$ or, $a b^2 - b^4 = a x^2 (a - b);$ and both sides being

divisible by $(a - b),$ we have $b = \sqrt[3]{a x^2}.$ Therefore we find

that, according to the union of the above results, the beam is in

equilibrium, when pressing against the horizontal plane, provided the

centre of gravity is in such a point of it, that one of its segments

is the first of two mean proportionals between its whole length

and the horizontal distance of the centre from the vertical plane.

Is this proposition true upon other principles? Our readers may

find, by turning to our review of Signor Fontana's paper, that

this is the very solution given of a different problem, both by Eu-

ler, upon the theory of *minima*, and by Fontana, upon the appli-

cation of the arithmetic of sines to the ordinary principles of sta-

tics. Both these mathematicians have proved, that a rod or beam

pressed by any force against a plane, remains in equilibrium upon

a given fulcrum, when it is so placed that one of its segments

is the first of two mean proportionals between the whole length and the distance of the fulcrum from the plane. The two cases are therefore in this instance exactly the same; and the ordinary calculus founded upon the doctrine of the composition and resolution of forces, instead of leading us into error, as our author rashly supposes, presents, when compared with his own, an elegant confirmation of the whole solution, as well as a proposition regarding this one case, which neither method of itself pointed out. For we find that the pressure P vanishes altogether in the above expression; and we see plainly that there is one method of leaning the beam upon the wall and the ground, so that it shall remain accurately at rest without any counteracting force (\int) applied to its extremity, and merely by supporting its centre. If the centre of gravity be only placed at a distance from the vertical plane, equal to the square root of the fraction whose numerator is the cube of the beam's superior segment, and whose nominator is the whole beam, then the beam will be in equilibrio, without the help of friction, provided its centre be supported.

These consequences might be prosecuted much farther, and illustrated by a variety of curious physical porisms with which they are intimately connected. We shall, however, here conclude with remarking, that the subject entered upon by our author in the paper now analyzed, deserves a much fuller investigation than he has given it. To entitle his essay 'The principles of statics applied to the construction of roofs, bridges and vaults,' is certainly eminently ridiculous, when the whole scope of it comprehends only a single case of the elementary doctrines of the first of those subjects. The remainder of these doctrines are only mentioned in the essay, in order to be dismissed as too difficult; and not a word is said of either bridges or vaults. Yet are we far from wishing to undervalue the author's merits. What he really attempts, he executes well. His solutions are strict, clear, and elegant. We only regret that he has chosen to limit his darings; and trust he will soon return to the charge.

ART. XII. *A Northern Summer: or Travels round the Baltic, through Denmark, Sweden, Russia, Prussia, and part of Germany, in the year 1804.* By John Carr, Esq. 4to. pp. 492. London, Philips. 1805.

IN estimating the merits of this large volume, it is fair to recollect that the author's pretensions are sufficiently modest. His plan has evidently been to produce a book rather for the amusement

ment than the information of the reader; and he rarely exposes himself to censure or ridicule, unless when he deviates into less humble tracks. His excursion seems to have been rapidly performed, and he has with proportionate haste given a sketch of the objects which forced themselves upon his notice, and of the incidents which occurred to him on the journey. The countries through which his route lay, have, of late years especially, been much frequented, and he has rendered an acceptable service to the travelling portion of the community, by recording a variety of particulars so little interesting to the generality of mankind, that but for the assistance of such writers as Mr Carr, each traveller's experience would be lost to his successors. In one respect, as contrasted with other authors in the same department of literature, he deserves peculiar praise. He does not aim at supplying his want of interesting matter, or breaking the dullness of his subject, by retailing anecdotes of private characters; and the sentiments which he has an opportunity of introducing, are, for the most part, such as no wise or good man needs be ashamed to acknowledge. He has augmented the stock of books which join entertainment and usefulness, without any injury either to public morals, or to the feelings of individuals.

Such is the general impression which a careful perusal of this book has left of its merits; and we hope it will not be ascribed to a desire of qualifying the praise now bestowed, that we suggest how small the difficulty is of communicating a certain portion of entertainment by the narrative of travelling occurrences, and the description of the most prominent objects in foreign countries. This easy task has been performed by Mr Carr; and we shall take occasion, as we proceed, to notice the trifling proportion of new information which is to be gleaned from his accounts. It is our duty also to point out the specimens of ignorance and bad taste which sometimes occur in his pages, and to rectify a few errors of more serious importance, into which he seems to have fallen.

Our author sets out with a promise, that he is to 'write from his feelings.' Arriving at Harwich, and visiting the churchyard, he finds the tomb of a Norway ship captain, who died by the bite of a mad dog. This 'draws from' Mr Carr many lines of *poetry*, and the following, among others.

'The fond companion of thy pilgrim feet,
Who watch'd when thou would'st sleep, and moan'd, if miss'd,
Until he found his master's face so sweet,
Impress'd with death the hand he oft had kiss'd.'

It is fortunate that Mr Carr does not throughout the book adhere to this alarming promise, of 'writing from his feelings.'

From

From Hufum where he landed, he proceeds through Holstein, and crosses the Belts. As he is extremely fond of quoting, particularly from Shakespeare, the country of Hamlet furnishes him with constant opportunities of indulging this propensity: and indeed if he did not find such occasions, he would make them; for he no sooner observes a man with a red face, than he gives at length Falstaff's speech to Bardolph. One of the most striking peculiarities in the construction of this book, is the discrepancy between the titles or summaries given at the beginning of the chapters, or tops of pages, and the contents themselves. The following passage is called '*Danish character.*'

† The Dane is a good-natured laborious character; he is fond of spirits, but is rarely intoxicated; the severity of the climate naturalizes the attachment, and his deportment in the indulgence of it is inoffensive.' p. 33.

Then follows the title '*Gin,*' which introduces a story of a Dane receiving from a fat landlady a glass of that fluid, and drinking it off † as if it had been as much cocoa milk; † a sight, one should think, that an inhabitant of London need not have penetrated into Denmark to see. Under the title of '*a merry error,*' we find it recorded, that a young German, upon being stopped at a barrier, jumped up and exclaimed, '*Vat de devil! dus dat little Rufs man take us all for screws?*' meaning *spies*. Mr Carr's own French furnishes many equally '*merry errors.*' We shall only mention his whimsical conversion of the Knight's Hall in Fredericksborg palace into '*Sal de Chevalier.*' (p. 83.) As we are upon the subject of languages, we may here enter our protest against a practice by no means peculiar to this traveller, of giving French names and titles to places and persons as little connected with France as with China. Our own language is surely rich enough to furnish those expressions; and yet we must have Swedes and Germans called *Monsieur*, and the streets of Stockholm named as if they were in Paris. This incorrectness is the more remarkable in Mr Carr, because he displays a minute attention to such matters upon other occasions. He never mentions an English esquire, without adding that clumsy designation; for example, in the following exclamation—'*How opposite was this tribunal to that which Sheridan, in a blaze of eloquence, apostrophized upon the trial of Warren Hastings, Esquire!*' (p. 97.)

There is nothing in our author's detached remarks and stories relative to Denmark, which we think worth the trouble either of abridging or extracting. Our readers, we are afraid, would be little amused with an account of Tycho Brahé, '*who was the inventor of a new system of the world,*' losing his nose in a quarrel, and making a new one of gold and silver; and we are prevented

prevented from quoting the history of the Dutch hermit, by our unwillingness to incur the necessity of extracting his epitaph translated by the 'distinguished pen of William Hayley, Esquire,' and his farewell by the 'poetic and elegant mind of Leigh Hunt, Esquire.' The following is a fair specimen of Mr Carr's talent for description. When he confines himself to a plain enumeration of obvious particulars, he is well enough. It is in his fine and feeling humours that he endangers our gravity.

'The first day we dined at Orke Ginga, under the porch of a little cottage: the scenery about us was very desolate and dreary. As we skirted some of the lakes which abound in Sweden, we saw the peasant women half-knee deep in water, washing their linen: they looked hardy and happy. The architect must ever be governed by nature in the size, shape and materials of his building. Sweden is one continued rock of granite, covered with fir: hence the cottages, which are only one story high, and many of the superior houses, are constructed of wood, the planks of which are let into each other in a layer of moss, and the outside is painted of a red colour: the roof is formed with the bark of the birch, and covered with turf, which generally presents a bed of grass, sufficiently high for the scythe of the mower. The floors of the rooms are strewed with the slips of young fir, which give them the appearance of litter and disorder; and the smell is far from being pleasant. Nothing can be more dreary than winding through the forests which every now and then present to the weary eye little patches of cleared ground, where firs had been felled by fire, the stumps of which, to a considerable height, were left in the ground, and at the distance resembled so many large stones. Inexhaustible abundance of wood induces the peasant to think it labour lost to root them up; and they remain to augment the general dreariness of the scenery.

'The population in both the provinces of Scania and Smaland, is very thinly diffused: except in the very few towns between Flensborg and Stockholm, the abode of man but rarely refreshes the eye of the weary traveller. At dawn of day, and all day long, he moves in a forest, and at night he sleeps in one. The only birds we saw were woodpeckers. The peasantry are poorly housed and clad; yet amidst such discouraging appearances, their cheek boasts the bloom of health, and the smile of content. Their clothes and stockings are generally of light cloth; their hats raised in the crown, pointed at top, with a large broad rim; and round their waist they frequently wear a leathern girdle, to which are fastened two knives in a leather case. The country, in these provinces, appeared to be very sterile; only small portions of its rocky surface were covered with a sprinkling of vegetable mould.

'One day, wearied by the eternal repetition of firs, we were, without the least preparation, suddenly enlivened by the sounds of a military band; and an abrupt opening in the forest, displayed, as by enchantment, an encampment of a fine regiment of the Lindköping, or as it is pronounced,

ed, Lindehipping infantry : their uniform, which is national, is blue, faced with yellow. The instantaneous transition from the silence and gloom of woods, to the gaiety and bustle of the camp, was very pleasing.' p. 109. *et seqq.*

We do not always escape so well from a fine scene. The course of our author's journey having brought him near a neat cottage in a romantic situation, 'out flew my sketch book and my pencil, but the latter would do nothing but write verses.' The poetry delivered on this occasion, though not the worst in the volume, does certainly record that

'As the gazing stranger passes by,

'The grazing goat looks up and rings his bell.' p. 115.

It is but fair to mention that Mr Carr, though a poet, is in no degree a partaker of the jealousy which too often divides the sons of song. He never quotes a contemporary, but to praise him ; and he ascribes part of the immortality of Gustavus Vasa, to a tragedy written by Mr Brook, (p. 140.) He has also a most learned conjecture upon the origin of the '*Loves of the Triangles*.' It seems there flourished in the reign of Gustavus Adolphus, a famous Swedish mathematician and poet, called Stiernhielm. 'Perhaps,' says Mr Carr, 'it was the life of that singular man which suggested the above poem.' (p. 176.) We would submit to the judicious author, our suspicions, that he has not read the '*Loves of the Triangles*.'

Mr Carr's great favourite in the Swedish part of his travels, is Gustavus III. ; and we cannot help considering his eulogiums as rather too lavishly bestowed. That the talents and acquirements of this prince were great, no man can deny, who reflects on the changes which he accomplished in the constitution of Sweden. But after all the praise due to eloquence, intrigue, activity, and the semblance of courage which great activity frequently assumes, has been allowed him, much will remain to be blamed or despised, and more to awaken our doubts and suspicions. Whatever may have been the advantages which Sweden derived from the revolution 1772, we cannot surely point out the author of it as remarkably distinguished by his zeal for the freedom of his country. (p. 129.) The extravagance of Gustavus was altogether inexcusable in one who came to the throne of Sweden only half a century after the death of Charles XII. Its effects are felt to this day, and render the appellation of '*friend of Sweden*,' emphatically bestowed on him by our author, at least somewhat doubtful. No allusion is made to the evils of that policy which produced the last war with Russia ; and the blind panegyric of Gustavus has not reflected upon the escape which Sweden made from a very disproportionate share in the benefits of the revolution war, only by the sudden death

death of her '*friend*.' The wicked and contemptible system of augmenting the wealth of the country by increasing dissipation, and encouraging immorality among the higher orders of society, has been imputed, with great appearance of justice, to this *wise, magnanimous, and amiable* prince. Nor can those who so freely denominate him hero, truly great, and so forth, easily explain away that perverted habit of mind which made him on all occasions prefer the oblique to the straight path, and think his success incomplete, unless, in gaining his end, he could exhibit his address. In the execrations heaped upon Ankerstroem, we heartily concur; not because the foul deed for which he suffered deprived Sweden of her idol, as Mr Carr calls him, but because we abhor assassination for its own sake, and will admit of no attempt to palliate its iniquity by the view of any paltry temporary gains with which, like all other crimes, it may happen to be attended. And, for this reason, we must enter our protest against the tone adopted by Mr Carr in his observations upon the death of the Emperor Paul. He certainly does not undertake the defence of those who murdered that monarch. On the contrary, he qualifies his remarks by some general admissions of their guiltiness. But where the whole colour and complexion of a man's discourse is at variance with a few professions anxiously introduced into it, these can have no other effect than to save him from the charge of stating dangerous principles in a form rather disgusting than hurtful. We trust that our author has in the present instance erred from a casual inadvertency; for, upon other occasions, we have observed nothing of the same description in his work. It is, however, absolutely necessary that we should point out the exceptionable doctrines; and this task we are the more inclined to do, because it will afford an opportunity of noticing the only important piece of information contained in the book.

The history of Paul's assassination commences with a statement that the facts are given upon the authority of '*one who beheld the catastrophe*,' and whom our author '*can neither name nor doubt*.' p. 302. We presume him to mean that he heard the particulars from one of the assassins. In p. 427, we are informed that he had a good deal of conversation with the person who took the lead in the whole proceeding, Count P—— Z——, having met him accidentally at an inn in Livonia, and received much civility from him. If common report may be credited, the conspirators have never shewn themselves anxious to conceal any part of the transaction; it is therefore not unlikely that Mr Carr's information may either have been derived from, or at least confirmed by the Count himself.

One of the first acts of Paul's reign was sufficiently singular.

He removed his father's body from its place of interment, and carried it to be deposited in the same vault with his mother, after having exhibited it in state, and forced Orloff and Baratynski, the murderers, first to keep watch beside it, and then to attend the procession as chief mourners. Our author adds several other anecdotes of this strange eccentric prince, and gives his suffrage to the opinion that he was deranged. Neither here nor elsewhere, have we met with any proofs that Paul was more a madman than those other despotic sovereigns, who, wanting the genius required for a steady pursuit of great designs, fill up their leisure by the unlimited indulgence of their capricious fancies. Like them, he seems to have been extremely suspicious; and P—— Z——, his mother's last favourite, fell under his displeasure, notwithstanding the very important service he had rendered, in delivering up Catharine's will, which appointed Alexander her immediate successor. His estates and those of his brothers were sequestrated; and though this sentence was almost immediately recalled, he was ordered to reside upon his property. 'But his mind,' says Mr Carr, 'was too ardent to endure seclusion.' He availed himself of the influence of Madame Chevalier with the Emperor, to obtain a share of his favour for one of his own friends; and the two favourites together prevailed upon Paul to receive Z—— once more into his good graces. His first measure was to plan the assassination. 'Whatever private pique,' says our author, 'Z—— might have cherished against his Imperial master, I believe that it was wholly lost in his review of the deteriorated and dreadful condition of the empire, and in those awful measures of restoration, which were afterwards resorted to.' He associated with himself several other noblemen of great rank and influence, who agreed in opinion, that 'to save the empire, it was necessary that the Emperor should be removed.' — 'All these noblemen were actuated,' says Mr Carr, 'by no other motive than to prevent the final ruin of their country; and for this purpose, they determined to place in peril their lives and their fortunes.' Whatever may have been the motives of the other conspirators, we think that those of the ringleader are sufficiently explained by this defence of his conduct. He began with betraying the trust reposed in him by Catharine, in order to secure the favour of Paul. Failing in this scheme, he narrowly escaped that ruin which the unsuccessful intriguers for power, under a despotic prince, commonly find to be their only alternative. He wished to try the chance of a new monarch, who might repay treachery somewhat better, or, at any rate, might be less capricious than the old one. And he intrigued to obtain a renewal of Paul's favour, in order to have a better opportunity of accomplishing his murder.

The conspirators having arranged their measures, proceeded in the following manner. We extract Mr Carr's own words, which give a very lively picture of the whole catastrophe:

‘ It was the custom of the Emperor to sleep in an outer apartment next to the Empress's, upon a sofa, in his regimentals and boots, whilst the grand Duke and Dutchess and the rest of the Imperial family were lodged at various distances, in apartments below the story which he occupied. On the tenth day of March O. S. 1801, the day preceding the fatal night, (whether Paul's apprehension, or anonymous information suggested the idea, is not known), conceiving that a storm was ready to burst upon him, he sent to Count P—— the governor of the city, one of the noblemen who had resolved on his destruction: “ I am informed, P——,” said the Emperor, “ that there is a conspiracy on foot against me; do you think it necessary to take any precaution?” The Count, without betraying the least emotion, replied, “ Sire, do not suffer such apprehensions to haunt your mind; if there were any combinations forming against your Majesty's person, I am sure I should be acquainted with it.” “ Then I am satisfied,” said the Emperor, and the governor withdrew. Before Paul retired to rest, he unexpectedly expressed the most tender solicitude for the Empress and his children, kissed them with all the warmth of farewell fondness, and remained with them longer than usual; and after he had visited the sentinels at their different posts, he retired to his chamber, where he had not long remained, before, under some colourable pretext that satisfied the men, the guard was changed by the officers who had the command for the night, and were engaged in the confederacy. An hussar, whom the Emperor had particularly honoured by his notice and attention, always at night slept at his bed-room door, in the anti-room. It was impossible to remove this faithful soldier by any fair means. At this momentous period, silence reigned throughout the palace, except where it was disturbed by the pacing of the sentinels, or at a distance by the murmurs of the Neva; and only a few lights were to be seen distantly and irregularly gleaming through the windows of this dark colossal abode. In the dead of the night, Z—— and his friends, amounting to eight or nine persons, passed the drawbridge, easily ascended the staircase which led to Paul's chamber, and met with no resistance till they reached the anti-room, when the faithful hussar, awakened by the noise, challenged them; and presented his fusée: much as they must have all admired the brave fidelity of the guard, neither time nor circumstances would admit of an act of generosity, which might have endangered the whole plan; Z—— drew his sabre and cut the poor fellow down. Paul, awaked by the noise, sprung from his sofa: at this moment the whole party rushed into his room: the unhappy sovereign, anticipating their design, at first endeavoured to entrench himself in the chairs and tables; then recovering, he assumed a high tone, told them they were his prisoners, and called upon them to surrender. Finding that they fixed their eyes steadily and fiercely upon him, and continued

advancing towards him, he implored them to spare his life; declared his consent instantly to relinquish the sceptre, and to accept of any terms they would dictate. In his raving, he offered to make them princes, and to give them estates, and titles, and orders without end. They now began to press upon him, when he made a convulsive effort to reach the window: in the attempt he failed, and indeed so high was it from the ground, that had he succeeded, the expedient would only have put a more instantaneous period to his misery. In the effort, he very severely cut his hand with the glass; and as they drew him back, he grasped a chair, with which he felled one of the assailants, and a desperate resistance took place. So great was the noise, that notwithstanding the massy walls and thick double folding-doors which divided the apartments, the Empress was disturbed, and began to cry for help, when a voice whispered in her ear, and imperatively told her to remain quiet, otherwise if she uttered another word, she should be put to instant death. Whilst the Emperor was thus making a last struggle, the Prince Y—— struck him on one of his temples with his fist, and laid him upon the floor: Paul, recovering from the blow, again implored his life: at this moment, the heart of P—— Z—— relented, and upon being observed to tremble and hesitate, a young Hanoverian resolutely exclaimed, “We have passed the Rubicon: if we spare his life, before the setting of to-morrow’s sun, we shall be his victims!” Upon which he took off his sash, turned it twice round the naked neck of the Emperor, and giving one end to Z—— and holding the other himself, they pulled for a considerable time with all their force, until their miserable Sovereign was no more: they then retired from the palace without the least molestation, and returned to their respective homes.’ p. 314, &c.

After noticing the grief of the Empress and of the children, more especially the new Emperor; our author makes a very odd remark upon the deceased—for the purpose, it would appear, of consoling him for his own death.

‘The acuteness and pugnacity of his feeling was incompatible with happiness: unnatural prejudice pressed upon the fibre too finely spun, and snapped it.’

Next comes a page entitled ‘*Magnanimity.*’

‘Mercy, (we are told) the brightest jewel of every crown, and a forlorn and melancholy conviction that the reigning motive was the salvation of the empire, prevented Justice from being vindictive. Never, upon the theatre of life, was there presented a scene of more affecting magnanimity: decency, not revenge, governed the sacrifice.’ p. 329.

In short, P—— Z—— was ordered not to approach the residence; and Count P—— was removed from the government of St Petersburg to that of Riga: ‘and thus,’ says our author, ‘terminated this extraordinary and impressive tragedy.’

The account of Potemkin’s caprices and magnificence, though amusing, is to be found in all the books which have noticed the period

period of that singular man's influence. It is not so generally known that Paul, in one of his humours, ordered the Prince's remains to be exposed, and the mausoleum erected by Catharine to be pulled down. The anecdotes related of the present Emperor are all extremely favourable to his character, and prove him to be a person whose amiable qualities would fit him to adorn a private station. If Mr Carr's account may be credited, he is peculiarly attached to the English nation, and has often been heard to say, that 'the man within whose reach Heaven has placed the greatest materials for making life happy, is an *English country gentleman*.' We earnestly pray that the times may once more be known, when it shall be safe for Europe to have the sceptre of all the Russias swayed by monarchs, whose dispositions lead them to envy the happiness of this respectable class of our community.

Of Catharine II. not many new anecdotes are recorded in this volume. Our author praises her for the promptitude and decision which she displayed in putting down a set of fanatics, we should have thought but little likely to gain converts. Their fundamental tenet was, that immediate castration is indispensably necessary to salvation; and this attractive principle proved so popular, that Mr Carr says it spread and threatened the radical extinction of society. The story which follows this very strange one, would stand a better chance of being credited if it were seen in less suspicious company. The Jacobin emissaries, it seems, were making some progress among the lower orders of the people in St Petersburg. Catharine had them all seized one evening, and carried to the lunatic asylum, where they were properly shaved, blistered, starved, and physicked. After fourteen days of this wholesome regimen, they were restored to the public view, and universally shunned as insane. Had this harmless experiment failed, she had another mode of treatment in store, and prepared for its adoption, by quickly building a vast state prison.

We know not whether the anecdote of the Samoid deputies in p. 284. has not an air somewhat too romantic: if authentic, it is curious. When Catharine assembled deputies from all the provinces of her vast empire to approve of her new code, two Samoids were asked what legislative provisions they thought best adapted to their nation? 'Our laws are few,' said one of them, 'and we want no more.' 'What,' exclaimed the Empress, 'do theft, murder and adultery never appear amongst you?' 'We have such crimes,' answered the deputy, 'and they are punished: the man who deprives another of his life wrongfully is put to death.' 'But what are the punishments of theft and adultery?' interrupted Catharine. 'How!' said the Scythian, with

equal astonishment, 'are they not sufficiently punished by detection?'

Nothing in Russia appears to have given our traveller more delight than the mode of salutation used by the two sexes. The gentleman kisses the lady's hand, and she, as he raises his head, kisses his cheek. This '*captivating characteristic*' quite runs away with the author's tender feelings.

'It was politeness improved by the most charming gallantry: bows, curtsies, and salams, are ices to it.'—'Whilst France,' continues the enraptured youth, 'whilst France furnishes us with caps and bonnets, and Egypt with dusky sideboards, may the Russians fix the universal mode of friendly meeting between the sexes for ever and for ever!' p. 229.

The strength of his tendencies in this line sometimes misleads him rather amusingly. In p. 380. he gives what he calls 'a beautiful recipe for preserving *love*.' It is contained in some lines sufficiently descriptive of the arts and blandishments used for maintaining the fire of animal passion; and still more pleasant is a similar mistake of love for desire, in the description of Catharine's garden house.

'One apartment was lined with small paintings of female heads, in pannels, representing, in the most exquisite manner, the progress of love, from hope to ecstasy. All the statues, pictures, and decorations, were calculated to kindle and cherish the noble and generous flame.' p. 392.

We have remarked already, that Mr Carr deserves peculiar commendation for abstaining from those private anecdotes with which travellers are too apt to fill their publications. In two instances only have we found any thing like an exception to this laudable discretion. In p. 169. he states the substance of a conversation with Professor Afzelius of Upsal on the subject of the slave trade; in which that learned person is made to 'deprecate any other than a gradual abolition.' The Professor resided some years at Sierra Leone in the Company's service; and we greatly doubt whether Mr Carr has accurately described his sentiments upon this important question. Indeed we are inclined to suspect a gross mistake, from the context of our author's account; for he adds, that the Professor 'declared, in a very emphatic manner, his perfect conviction that a *violent emancipation* would only shock and endanger this great cause of humanity.' It should seem, then, that he only expressed his aversion to any other than a gradual *emancipation*, and that he is indebted to Mr Carr's rashness for his enmity to an immediate abolition. The other instance of indiscretion to which we have alluded, occurs during our traveller's passage through Russian Poland. After stating, upon the authority

authority of a friend, that the condition of the peasantry has been considerably ameliorated since the partition, he adds a story, for which we trust there is no foundation, and which ought not to have been printed without the best authority, that Kosciuszko 'has declared, since her fate has been decided, that it was better for his country to be thus severed, and placed under the various protections of other powerful governments, than to remain an eternal prey to all the horrors of an elective monarchy, baronial tyranny, and intestine dissension.' p. 432. We hope Mr Carr will excuse us for requesting him to omit these two anecdotes in his next edition, unless, upon more accurate inquiry, he finds that his statements are correct.

Before concluding, we must again recommend this volume of travels as a useful companion to those who make the northern tour, and a book of considerable entertainment to those who pass their time by the help of light reading. It may give a favourable impression of the author's style of lively remark, if we select the following rather exaggerated character of the people of Dantzic.

'The god of gold seemed to have made this spot his favourite temple, to have constituted a bag of corn his chosen altar, and to have recorded his oracles in a ledger: the ramparts of the town seem preserved only to repel hospitality and generosity. The Dantzickers keep a cash account of civilities, and never indulge in festivity without resorting to calculation. A calculating countenance under a little bob-wig, shining brushed cocked hat that has seen good service, a brown coat, waistcoat and breeches of the same colour, worsted stockings, a pair of shining little silver buckles, and an ivory-headed cane, denote the thrifty Dantzicker. The very beggar in the streets seems to expect a double proportion of bounty for his misfortune, and for the trouble of asking relief. As I was purchasing some articles at a grocer's for my journey, his wife held a little child in her arms, not old enough to speak, to whom I gave a pear, and presently after I presented him with a guilder, a little coin, which he griped, apparently, with the same instinct that would induce a young bear to rifle a honey-jar, and dropped the fruit. The little grocer seemed much pleased with his son's preference, and, in German, as well as I could understand him, exclaimed, "that he would make a brave little tradesman." p. 448.

ART. XIII. *Nouveau Dictionnaire d'Histoire Naturelle, appliquée aux Arts, principalement à l'Agriculture et à l'Economie rurale et domestique.* Par une Société de Naturalistes et d'Agriculteurs : Avec des Figures tirées des trois Règnes de la Nature. 24 tom. 8vo. Paris, 1803 & 1804.

WHEN men of talents and reputation unite in the production of an extensive work, and when that work has attracted the notice and encouragement of the public, we cannot, consistently with our professions, pass it in total silence. The very favourable reports of foreign journals, a numerous list of subscribers, and the reputation which attaches to most of the contributors, tempted us to take an early survey of the volumes which we have just announced, and to enter on the irksome task of reviewing a dictionary. According to M. Virey, indeed, we might have spared ourselves this ungrateful office; because, 'when such gentlemen join in writing a book, its merit supercedes discussion.' Our indolence pleads powerfully, we will own, for the reception of this modest proposition; but our duty compels us to reject it: in their own country, it is very probable that the mere names of the authors may serve as a passport to twenty-four volumes of very close printing; but as soon as they come abroad, they must submit to be searched and examined like common travellers.

At the head of M. Virey's *invincibles*, we were not displeased to find our old acquaintance *Sonnini*, the friend, editor, and continuator of the celebrated *Buffon*, and author of travels in Egypt, Greece, and Turkey. In the distribution of lexicographic labour, the history of birds and quadrupeds was assigned as his department. In treating of the first, he has adopted the classification and nomenclature of *Latham*; while, in regard to the latter, he has followed the method annexed to his edition of *Buffon*. It will be obvious, therefore, that, in a great number of instances, he had only to copy or abridge his own text, to which he frequently alludes with much self-complacency. A lingering illness, we are informed, prevented him from discussing the history of reptiles and fishes; but he has superintended, with considerable ability, the general arrangement and editing of the work.

As a writer, M. *Sonnini* is frequently too diffuse and florid for the chaste and compendious character of a didactic compilement, destined for consultation only, and to be estimated more by the number of correct facts which it contains, than by the melody of its rhetorical periods. Of ethical sentiment and remark, this ostentatious zoologist is also abundantly liberal. In his account of the rhinoceros, for example, he tells us, very much at his ease, that

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—‘ we regard only the man who attains to eminence ; and that individuals of the second order remain in contempt and obscurity, because the disadvantageous notion of weakness and imperfection is always associated with secondary, when compared with primary objects. This predilection,’ he very sagely continues, ‘ is often unjust, for it sometimes requires more strength of mind and virtue to remain in an obscure station, than to live on a throne which is conferred by birth. Epictetus, in bondage, is an honour to the human race ; while Nero, on the throne, is an object of execration.’

All this may be very sound logic, and very wholesome morality ; but the rhinoceros, we believe, is not particularly sentimental, and certainly does not possess any very obvious affinity either to Epictetus or Nero. As if the article *eagle* had not occupied sufficient space (about fifteen pages), it is made the vehicle for many pathetic reflections on the uncertainty of fame, equally original and appropriate to the subject. ‘ Such is the destiny of all celebrity : among men, it is tarnished by adulation, that is to say, by the most contemptible exaggeration. It is, besides, polluted by absurd fictions,’ &c. &c. His shorter articles are handled in a manner much less exceptionable. We select, as a specimen, his notice of the *Argus pheasant*, an uncommon bird, which supplies an elegant and fashionable appendage of female head-dress.

‘ **ARGUS.** (*Phasianus Argus*, Lath. fig. pl. 3. Philosophical Transactions, Vol. LV.) A bird of the PHEASANT genus, and of the GALLINACEOUS order. See these terms.

‘ The argus is only known by a short account published in the Transactions of the Royal Society of London, and copied into the Natural History of Buffon, forty-second volume of my edition. Some new information, furnished by recent travellers, has enabled me to insert an addition at page 218, of which the following is a transcript.

‘ This bird, which is of the size of a turkey-cock, has, on its head, a double tuft of plumes, which falls back. Its tail is composed of fourteen large graduated flag feathers, of which the two in the middle are very long, and extend greatly beyond the others. Its forehead and throat are covered with a naked skin, of a beautiful red, while the contour of the eyes, and the stiff bristles which project from the base of the bill, are black. The head and neck are tinged with blue, and the back and upper coverings of the wings with black, chequered with a bay red ; the rump and under coverings of the tail are fallow-coloured, speckled with brown ; the nine outer quill-feathers of the wing have a grey ground, shaded with yellowish brown, and with black and white spots on the inside ; the next eleven have their dark brown ground relieved with round and oblong spots, with a row of from twelve to fifteen spots, like eyes, running along the shank on the outer side ; lastly, the grey flag feathers of the tail are white, spotted with black, and black,

mottled with brown, on the inferior coverings. The legs are of a greenish ash colour; the iris of the eyes is orange, and the bill yellowish.

Thus, it is evident, that the colours of the argus are very pleasingly varied. Hence Mariden styles it, the *famous Sumatran pheasant*, and ranks it, in point of beauty, greatly above all other birds. (Hist. of Sumatra, French transl. tom. I. p. 189.) In that island, it bears the name of *coq-ou*, and in Chinese Tartary, that of *lucn*. Its European appellation of *argus*, is derived from the eye-like markings, which are profusely scattered on its plumage, and induce some resemblance to the peacock's tail, so gaudy with the hundred eyes of the unfortunate guardian of Io; that fable represents them as placed there by Juno's own hands. This resemblance has also procured for the argus, the surname of *Juno's pheasant*.

The argus is very shy. Its cry is as loud and harsh as that of the peacock, and its flesh as savoury as that of the common pheasant. It is with great difficulty kept alive; for it cannot be reconciled to the loss of liberty. Its eyes are dazzled by the light of day, which renders it sad and motionless; but it is fond of darkness.

As Sonnini is really very capable of imparting agreeable information, we regret that many of the extended articles belonging to his peculiar province, have been executed by such inferior co-operators as *Vieillot* and *Desmarest*.

Virey, whom we find designed, 'author of the natural history of the human race,' has been entrusted, we apprehend rather unfortunately, with the introductory discourse, and various important general articles relative to nature, man, animals, their constitution, structure, functions, &c. These, we have seldom perused, without experiencing disappointment and disgust. When we looked for general views, reduced to clear and distinct statements, we have commonly found ourselves withdrawn from the object of our search, by vague and flimsy declamation, unfounded assertions, or puerile repetitions. His preliminary harangue may probably pass for a choice morsel of eloquence among the Parisian *belles* and *petit-maitres*. It is divided into two parts, the first of which professes to present us with general considerations on nature, its provinces, its beauties, and the inducements to the study of its phenomena; while the avowed object of the second, is to sketch the origin and progress of natural history. From both sections, we are dismissed with little real information, but with an ample allowance of unmeaning apostrophes and marks of interrogation. In one passage, we are told that 'stones and minerals know no age, and can never die;' in another, that 'Nature is a *chaste virgin*, whose charms we can discover only through an hundred veils;' in another, that 'she has not always been what she is to-day, and that she in vain affects

affects to conceal, under flowers, the disorders and ruins of her past life.' At another time, we really tremble for her existence.

'The season will perhaps arrive, when man will behold her *fatigued with producing whole generations, and hardly able to crawl.*' At that portentous period, the sun wandering in the night of heaven, will emit only pale rays; the stars dying, like lamps which have consumed their oil, will gradually be extinguished; and the universe, *like a giant's carcase*, will fall to shreds, unless the Sovereign Architect be pleased to recal nature and the worlds from their swoon!' In the very next sentence, our rhetorician exclaims, 'How sublime and majestic is this living Nature! How she *shines* in spring with grace and *fecundity*! How pompous on her gala days, when, awakening to the tender looks of her *spouse*, the shades of the morning fly, and the first beams of Aurora glitter in the east!'

In a subsequent passage, we are tempted to suppose ourselves transported, for a moment, into Noah's ark; for we are treated with a delightful melody of birds, beasts, fishes, and creeping things, among which '*sedulous* monkeys, and loquacious parrots,' are not forgotten. This scene of amiable harmonies is scarcely closed, when we are at length assured, for our comfort, that 'though every thing pertaining to life be a dream and an illusion, "God and nature are eternal." Such are some of the most memorable effusions of J. J. Virey, author of the natural history of the human race.

With the name of *Parmentier* we have been long familiar, and have always been accustomed to connect with it, the most honourable motives which can stimulate the mind in the prosecution of science; for his labours have been invariably directed to improve the means and comforts of existence. On the present occasion, we could have wished for a more liberal allowance of his practical instructions: for though they be sometimes tinged with the prejudices of his country, and addressed to a people who have still much agricultural knowledge to acquire, they may supply useful hints to readers of almost every description. In treating of grain, flour, bread, potatoes, wine, &c. this worthy member of the National Institute evinces a happy combination of judgement, talent, and experimental information. His articles are by far too long for citation; but we beg leave to recommend their serious perusal to every student of domestic and rural economy. Much has been done in this department of physics for nomenclature, method and description; and the study may certainly be rendered subservient to intellectual exercise and rational amusement: but its value must be ultimately determined by the test of its practical utility. In the eye of reason and philosophy, the humble, but honest endeavours of the naturalist, to promote the subsistence and the comforts of sentient beings, far outweigh the boasted efforts of power and

and affluence, which terminates so often in their destruction. The prejudices which have grown out of our factitious institutions, have rendered the language of truth nearly ridiculous; yet the merit of introducing a single esculent plant into general use, probably surpasses that of conducting armies to aggrandize an empire. To prevent or alleviate famine, to assuage pain, to relieve the wants of our fellows, to augment the sources of health and agreeable accommodation, to proclaim to the busy and the ignorant classes of mankind, the means of enlarging the circle of the blessings and conveniences of life; this is patriotism, we think, and virtue. Parmentier may not shine on the rolls of fame, like a Linnæus or a Buffon; but it cannot be denied that his writings have a more immediate reference to the welfare of society.

M. Huzard, Member of the Institute, and celebrated on the continent for his knowledge in the veterinary art, has undertaken to treat of the diseases incident to domestic animals, and the most approved methods of cure. His remarks evidently bespeak an intimate acquaintance with the subject; but they are dealt out with wondrous parsimony, and, frequently, in a form too compressed to be of much real service. To the article *horse*, he subjoins a catalogue of maladies; but he leaves *cows* to shift for themselves.

By far too large a portion of literary drudgery has devolved on *Bosc*, Member of the Parisian Society of Natural History, and of the Linnæan Society of London. Not content with fishes, reptiles, molluscs, worms, and shells, this voluminous compiler holds himself responsible for most of the generic and specific descriptions of plants. His omissions, of course, are numerous, and his multifarious communications often crude, meagre, and unsatisfactory. Notwithstanding the assistance of such able colleagues as *Cels*, *Thouin*, *Du Tour*, and *Tollard*, the botanical department of this Dictionary is peculiarly defective. The cryptogamies, which stand most in need of elucidation, have been most neglected; many interesting genera and species have been excluded, and the accounts of many others are limited to a few technical characters. Among various other instances of entire omission, we may notice *Plantago maritima*, which is by no means of rare occurrence, as it is a native of North America, the coast of Barbary and Europe, and as, like *Statice armeria*, it flourishes on the sea-shore, and on alpine heights. From this last mentioned circumstance, some Continental botanists seem to have confounded it with *Plantago alpina* (also omitted by M. Du Tour); but the latter may, at all times, be distinguished from it by its short oval spikes, and flat lanceolate leaves. As a variety occurs with toothed leaves, it has also been mistaken for the *Leslingii* (another omitted species), which may be discriminated by flat leaves, and short, roundish, pale spikes.

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not unlike those of the *psyllium*. This last, and between thirty and forty others, which we shall not stop to enumerate, compose M. Du Tour's *negative* catalogue of the genus *Plantago*. As his countrymen, however, use the maritime sort for a pickle and salad, and sometimes boil the leaves in soup, he might at least have deigned to mention it. More important considerations suggest it to our present notice: for it is now ascertained, that it accommodates itself to almost every diversity of soil and climate; that it resists long droughts; that it is greedily devoured by cows and horses, and that it is successfully cultivated with clover in North Wales, particularly in Anglesea. The numerous and difficult genus, *Carex*, is despatched by Bosc in a manner so very superficial, that it can be of use neither to the tyro nor the adept. This negligence is the more inexcusable, because Drs Withering and Goodenough have laid the foundation of a distinct arrangement. Most of the species, too, combine singularity with elegance of structure, and not a few have been found to possess some useful properties. The roots of the *Arenaria*, for example, are well adapted to fixing moveable sand, as they not only extend their interlaced fibres, but retain a certain degree of humidity at the surface. When fresh or washed, they favour of oil of turpentine, or some balsamic pine; and they have been long celebrated in Germany, as possessing virtues superior to those of sarsaparilla. Gleditsch, in the Berlin Memoirs for 1769, adverts to their successful application in the March of Brandenburg, where waggon loads of the roots may be easily obtained. Where it cannot be procured, the *disticha* of Hudson, and the *hirta* of Linnæus are recommended in its stead. None of these circumstances, however, are even hinted at in the article *Laiche*, nor can we so much as recognize the plant with which they are connected. If we could spare time and room, we might easily multiply similar instances of unpardonable carelessness. It is, to be sure, very polite and good-natured on the part of M. Virey to trumpet the praises of the botanical phalanx; but we always distrust prefatory eulogy—'By their fruits ye shall know them.'

Entomology has been shared between *Olivier* and *Latreille*, both Members of the Institute, *et Arcades ambo*. The former has acquired a respectable name by his general articles on the same subject in the *Encyclopédie Méthodique*, and his Travels in Egypt, Turkey, and Persia; and the latter by his learned treatises on the genera and families of insects. Several of the anatomical and physiological details, and the exposition of the coleopterous order, are from the pen of Olivier. If his enumerations be incomplete, his statements are always apposite, and conveyed in language perspicuous and precise. He has, moreover, bestowed a commendable attention on the manners and habits of the little creatures which

which he so ably describes. In these respects he is nearly on a level with his ingenious associate. Their joint stock by no means forms a complete Entomological Dictionary; but it is, on the whole, highly creditable to their knowledge and talents, at the same time that it is often entertaining and instructive to the reader. The article *Insect* itself which occupies sixty pages, and is executed by Olivier, contains many excellent observations on the study, configuration, structure, and economy of the minuter families of living beings. We shall extract only a short passage, which includes a quotation from Latreille.

‘ That insects are endowed with the sense of hearing, can no longer be disputed, since *frog-hoppers*, and several of the *orthopterous* tribes furnish us with undeniable proofs of the fact. Nature has provided the males of these insects with the means of calling their females by an instrument fitted to produce a sound which is heard by the latter. The male and female cricket give notice of each other’s presence by repeatedly striking with their mandibles against old wood in houses, or decayed trees, their favourite haunts.

‘ That insects possess the faculty of smelling, is clearly demonstrated. It is the most perfect of all their senses. *Beetles*, of various sorts, *nitidule*, the different species of *dermestes*, *lylphs*, *flies*, &c. perceive, at a very considerable distance, the smell of ordure and dead bodies, and resort in swarms to the situations in which they occur, either for the purpose of procuring food, or depositing their eggs. The blue flesh-fly, deceived by the cadaverous odour of a species of *arum*, alights on its flower. But, though we can thus easily prove the presence of the sense of smell among insects, it is much more difficult to discover the seat of that particular sense. Several naturalists have supposed that it resides in the antennæ. Duméril, in a dissertation published in 1799, attempts to prove, that it must be situated about the entrance of the stigmata or respiratory organs, as Baister had previously supposed. His arguments, however, did not induce Latreille to relinquish the former opinion, which places it in the antennæ. The following are the reasons which he assigns for his belief.

‘ 1. The exercise of smell consists only in the action of air, impregnated with odoriferous particles, on the nervous or olfactory membrane, which transmits the sensation.

‘ If insects be endowed with an organ, furnished with similar nerves, and with which air, charged with odoriferous particles, comes in contact, such an organ may be regarded as that of smell. Should the antenna present a tissue of many nerves, what inconvenience can result from supposing that this tissue is capable of transmitting odour? Would not this hypothesis, on the contrary, be more simple and more consonant to anatomical principles, than that which fixes the seat of smell at the entrance of the stigmata? Besides, this last mode of explanation will not, I presume, suit the crustaceous animals, which so nearly approach to insects.

' 2. Many male insects have their antennæ more developed than the females; a fact easily explained, if we admit that these organs are the seat of smell.

' 3. It is certain that most of those insects which live or deposit their eggs on putrid animal or vegetable matters, stagnant waters, or any substance, in short, which, for a time, affects peculiar localities, are almost uniformly distinguished by a greater developement of the antennæ. Such, for example, are the *scarabs*, *dermestes*, *symples*, *cleri*, *tenebriones*, *tipulae*, *libiones*, &c. These required a more perfect sense of smell, and are organized accordingly.

' 4. A great many insects, which are entirely predacious, have simple antennæ; and those which are characterized by similar manners, and which are sedentary, have none at all; as, for instance, the *aceri*, and a considerable portion of Lamarck's *arachnide*.

' 5. Insects discover their habitation and food by the sense of smell. I have deprived several insects of their antennæ, when they instantly fell into a state of stupor or derangement, and seemed to be incapable of recognizing their haunts or their food, though just beside them. Such experiments deserve to be prosecuted. I would recommend, for example, the varnishing or covering the antennæ of dung beetles, and placing them near animal excrements, of which they are particularly fond, to observe if they would repair to them as usual.

' 6. The nerves terminate at the antennæ; and their articulations, though externally covered with a pretty thick membrane, are hollow, lined within by a soft substance, which is often of a watery consistency, and whose extremity, when opposed to the air, may receive its impressions.'

The articles *Bee*, *Spider*, *Butterfly*, &c. will well reward the trouble of perusal. *Bombus* furnishes some interesting pages; but not one fourth of the species are characterized. The same remark applies to too many of the genera.

The name of Chaptal is formally announced as connected with the application of chemical science to natural history.

' For this we are principally indebted to CHAPTAL, Member of the Institute, and an illustrious philosopher, who combines profound knowledge with the executive genius of the statesman. We will not praise as it deserves splendid merit that is decorated with high official situation; since flattery has too often perverted panegyric by prostituting it to power alone. We conceive a modest silence to be more suitable. Different chemical articles relative to vegetable and mineral substances, and to meteorology, which will be found in this work, belong to the learned friend of the arts, who is solicitous of procuring to France all the advantages of the natural sciences. Thus the example of the great Colbert will not be lost for our country and our posterity.'

From this we might naturally infer, that the Minister of the Interior had graciously condescended to compose many a luminous page of this infallible Dictionary. What he has bestowed will certainly

tainly not detract from his reputation, which, as a chemist, is deservedly high; but the whole amount is really so very inconsiderable, as hardly to require notice. *Analysis, distillation, solution, reagent, &c. &c.* are not to be found in the alphabetical series. *Acid and alkali* are shortly explained by another hand, as are *gas, oxygen, azot, hydrogen, carbon, caloric, &c.*: and indeed the extreme paucity of M. Chaptal's communications strongly tempts us to believe, that they have been procured for the sole purpose of inserting his name among those of the regular contributors, and thus extending the sale of the publication.

Libér, Professor of Natural Philosophy in the central schools of Paris, has condensed several physical topics with considerable neatness and ability. His discussion of a *thunder-storm (orage)* involves a theory of the aurora borealis, which is at least ingenious and forcibly stated. With becoming modesty, he presumes not to have snatched the secrets of nature. Meteorology, he admits, must long be in its infancy, because most of the meteors are produced beyond the sphere of our agency, by agents which we cannot subject to examination. His observations on *light* are somewhat confused; and we wish that he had given more extension to such a difficult subject as *wind*. To compensate these deficiencies, *magnetism, electricity, galvanism, &c.* manifest a judicious selection of important facts.

M. *Dufresne*, overseer of zoological operations at the laboratory of the National Museum of Natural History, has communicated an excellent essay on *Taxidermia*, or the art of dressing, stuffing, and preserving the skins of animals. For the sake of professed collectors and keepers of cabinets, we should be glad to see so many useful directions translated into English.

Last, though not least in this club of naturalists, is the veteran *Patrin*, Member of the National Institute, and of several learned societies. Having, from early life, directed his vigorous and penetrating mind to the study of the physical constitution of our planet; and having, some time ago, returned from an eight years tour in Northern Asia with valuable mineral collections, he was eminently qualified to furnish a very respectable body of materials on geology in all its branches. Some of our readers need not be informed, that this indefatigable observer has published a system of mineralogy, which, as an exposition of most of the fossil substances at present known, possesses very uncommon merit, but which, viewed in the light of theoretical investigation, is extremely open to criticism. Many of his sentiments are bold, original, and ingeniously supported; but few of them will abide the test of sober examination. It is, therefore, to be regretted, that he has so frequently incorporated them with his admirable and characteristic descriptions

descriptions of fossil substances, and his masterly statements of acknowledged facts in the history of stratification, earthquakes, volcanoes, &c. Yet, we cannot dissemble, that even M. Patrin's dreams have amused us fully as much as any part of this miscellaneous and very unequal collection. To expound them at large, would lead us greatly beyond our proper limits. We shall therefore only hint, in passing, at one of them, which is certainly sufficiently *simple*. His theory of attraction, he acquaints us, accords with that of *Fermat*, the rival and friend of Descartes, 'mais trop bonhomme pour avoir fait beaucoup de bruit.'

'This good creature frankly admits, that the reciprocal attraction which exists between bodies, is caused by their natural *desire* for union (Var. Op. Math. p. 24.). 'This idea,' continues Patrin, 'is so simple, that men have disdained to attend to it; yet it appears to be so conformable to all the phenomena of nature, at the same time that it explains them in a way so rational and easy, that I am persuaded it will one day be an admitted truth, *that every thing in nature lives; and that every particle of the substance which we call matter, is endowed with perception and volition.*'

In justice, too, to this intrepid speculator, we have to remark, that he does not obstinately resist conviction. In an early part of the impression, we find him stoutly combating the growing belief in the fall of stony substances from the atmosphere, though the existence of such a phenomenon would illustrate his favourite tenets on the concretion of gases. In a future volume, however, he candidly recants his scepticism, and, 'nothing loath,' yields to the pressure of evidence. The shower of stones at L'Aigle is, indeed, sufficient to startle the most hardened unbeliever. The circumstances which accompanied this most wonderful appearance are well detailed by M. Patrin himself, under the article *Pierres Météoriques*. In place of extracting the whole, we shall give the substance of M. Biot's letter, by way of completing the train of evidence which we stated on a former occasion.

'On Tuesday, 6th Floreal, year xi, about one o'clock in the afternoon, the weather being serene, there was observed from Caen, Pont d'Audemer, and the environs of Alençon, Falaise, and Verneuil, a fiery globe, of a very dazzling splendour, and which moved in the atmosphere with great rapidity. Some moments after, there was heard at L'Aigle, and in the environs of that town, in the extent of more than thirty leagues every way, a violent explosion, which lasted five or six minutes. At first, there were three or four reports, like those of a cannon, followed by another which resembled the firing of musketry; after which, was heard a dreadful rumbling, like the beating of a drum. These noises proceeded from a small cloud, which appeared motionless while the phenomenon lasted; but the vapours, of which it was composed, were projected momentarily from different sides, by the successive explosions.'

explosions. This cloud was about half a league to the north-north-west of L'Aigle, and at a great elevation; for the inhabitants of two hamlets, a league distant from each other, saw it, at the same time, above their heads. In the whole district over which it hovered, a hissing noise was heard; and a multitude of mineral masses, exactly similar to those distinguished by the name of *meteoric stones*, were seen to fall at the same time. These masses were projected over an elliptical extent of about two leagues and a half in length, and nearly one in breadth, the greatest dimension being in a direction from south-east to north-west, coinciding exactly with that of the magnetic needle. The largest stones fell at the south-east extremity of the large axis of the ellipse, the middle-sized in the centre, and the smallest at the other extremity. The largest of all that fell weighs seventeen pounds and a half, and the smallest which M. Biot saw, about two *gras*, or a thousandth part of the last. In all, they certainly amount to above two or three thousand.'

Such are the principal results of M. Biot's researches, and they coincide with the letters of the learned and unlearned in the canton where the meteor was observed. It may be proper to remark, that M. Biot is a member of the Institute; that he was commissioned by the government to investigate all the circumstances on the spot; and that he has lately published a very detailed report.

He who examines the various accounts of this astonishing meteor, may detect some seeming contradictions. Thus, according to some, it had a rapid motion; others believed it stationary; some saw a very luminous fire-ball; and others only an ordinary cloud. The truth, however, appears to be, that it was viewed by different spectators in different positions with respect to its direction. They who happened to be in its line of march, would see it stationary, for the same reason that we fancy a ship under sail to be motionless, when we are placed in its wake, or when we view it in a straight line from the harbour to which it is approaching. They, on the other hand, who had a side view of the meteor, would reckon its progress the more rapid, in proportion as their position approached to a right angle with its line of passage. They, again, who saw it from behind, as the inhabitants of L'Aigle, could perceive only the cloud of vapour which it left in its train, and which, in the dark, would have figured like a blazing tail, in the same manner as the smoke of a volcano appears black during the day, and red at night. Lastly, they who were placed in front, as the people in the neighbourhood of Orbec, would view it as stationary, but brilliant and cloudless.

The L'Aigle stones have all the external characters of those deemed atmospheric, and yielded to Fourcroy and Vauquelin nearly the following proportions of ingredients.

Silica,

Silica,	54.
Oxyd of Iron,	36.
Magnesia,	9.
Nickel,	3.
Sulphur,	2.
Lime,	1.

105.

The additional five per cent. was probably owing to the oxydation of the metals produced by the analysis.

Besides geological and mineralogical topics, M. Patrin has treated several others which are more strictly meteorological, physical, or astronomical. But we cannot afford to dwell longer on individual compilers, and their respective quotas of service; and must now hasten to take a cursory glance of their united labours *en masse*. Each contributor, we are fully aware, is responsible only for the portions to which his name is annexed: but the publishers are responsible for the whole; and intending purchasers have a right to inquire, how far the undertaking, as a whole, is calculated to answer its professed design.

1. A complete dictionary of any science should include the whole appropriate phraseology of that science. If a single technical, or popular term, sanctioned by the authority of any respectable writer, be omitted, the vocabulary is, strictly speaking, defective. In most cases, however, perfect alphabetical enumeration is not to be expected; and, in the present instance, a register of fifty or sixty thousand names and synonyms, was rather to be desired than obtained. At the same time, had we not inspected these volumes with more than usual diligence, we could not have believed, that the mere catalogue of words which they exhibit, was half so poor and scanty as we find it to be. Thus, in the first hundred pages, which deduce the alphabetical series to *acridophages*, we have in vain searched for *abalen*, *abdelaui*, *abies*, *ablat*, *abomasus*, *aboumras*, *abrasion*, *abre*, *abreuvor*, *abrotonoide*, *acalyce*, *acanthias*, *acanthopis*, *acore*, *acuale*, *accologe*, *accoller*, *accolure*, *acorne*, *accouper*, *accroupie*, *accul*, *acculer*, *acerbi*, *acerée*, *acérine*, *acescence*, *acescent*, *acétates*, *acétoux*, *acétification*, *acétique*, *acétives*, *achelarge*, *acicule*, *acidification*, *acidifier*, *acidité*, *acidule*, *acinas*, *acocolin*, *acoli*, *acre*, *acuté*, *acridie*, &c. not to mention a legion of exotic and synonymous terms. Were we disposed to tire our readers and ourselves, we could produce a list of many hundred omissions. Notwithstanding the bold assertion, that 'every object is accompanied by the name assigned to it by Linnæus,' we could point out a great number of instances in which Linnæus and his nomenclature are never mentioned. We have already noted the

lamentable chasms in the department of Botany. That of Ichthyology is also far from complete. On turning to the abdominal and cartilaginous orders of fishes, we remarked, among other *absentees*, *Acanthotus nasus*, *Exocetus commersonii*, two species of *Polynemus* described by Russell under their Indian appellations of *Maga Bosbee* and *Maga Jellee*, the lined and plumierian species of the same genus, both noticed by Cépède, and *Raja guttata*, *fasciata*, *bicolor*, and *maculata*. In short, as we proceeded with our scrutiny, we fairly sunk under the accumulating load of sins of omission.

2. We are fully conscious of the abuses and absurdities to which an indiscreet zeal for etymology has given birth; and it has been said with some truth, that in the eyes of an intrepid etymologist, the consonants are of very little importance, and the vowels of none at all. Yet, if words can be distinctly traced to their origin, we conceive it to be the duty of the lexicographer so to trace them. We trust it will not be seriously maintained, that the analysis of names is an office too ignoble for the propagators of science: on the contrary, it is intimately connected with the most dignified of all sciences, namely, that of the human mind. In regard to the appellations of the known productions of nature, a very large proportion may be easily deduced from their Greek and Latin sources, though few of them lie within the precincts of pure classical diction, and, consequently, have seldom occupied the leisure of the learned. In proportion, however, as the languages of Greece and Rome have been banished into the schools and colleges of modern Europe, the study of natural history, whose technical phraseology has been constructed on the analogies of these languages, has been disused. Hence it becomes the more necessary to resolve the generic and specific designations and characters into their constituent parts, or, at least, to adjust their meaning, that they may be more readily retained in the memory, and that sense and reason may be perceived to attach to those portions of sound, which to many may appear capricious or arbitrary. Such grammatical treatment, too, may occasionally point to real or fancied properties and habits, and may thus associate the recollection of a name with traits of the economy or history of the object which it designates. Some of the more ancient, or of the more accidental denominations, it is true, may now be involved in obscurity. Yet, even in doubtful cases, a conjectural theme, if proposed merely as such, is, perhaps, preferable to silence. For, it can hardly be denied that the legitimate, or even the plausible derivation of a term, is the best introduction to the definition of its actual signification, just as the definition is the most suitable preamble to an explanation of

of the thing defined. For these reasons, it is surely desirable, that whatever aid etymology can furnish should be freely accorded to works of a purely descriptive and explanatory character. The compounders of the New Dictionary of Natural History, however, appear to have been guided by very different views; for they scarcely ever condescend to point to the original of a single word. We have occasionally observed recent coinages honoured with special explanation, as if to the bulk of readers they were of more difficult solution than those which have long passed current.

3. The history of the term, we need hardly add, should be followed by its definition, and that by a description of the object denoted. The generic and specific characters should be distinctly enumerated, and the qualities particularized, according to the most approved information and the most recent discoveries. In these respects the publication before us is entitled, on the whole, to considerable commendation; for it displays much accurate and even elegant explanatory detail. In too many instances, however, the elucidations are partial and scanty, while some of the more unwieldy subjects have been made the vehicles of crude and gratuitous speculations, or of vague and silly assertions, decked out in the parade of philosophical diction. Yet, if the descriptions be sometimes lame and unsatisfactory on the one hand, and sometimes unduly protracted, or blended with foreign matters, on the other, we have very seldom found them palpably erroneous.

4. We have already hinted at the important benefits which may accrue to the individual and to society from the prosecution of the study of natural history. An intimation of the uses, then, to which the objects described may be applied, must form an essential part of every liberal view of the science. Under the head of useful, we wish also to include ornamental properties. In common language, indeed, these epithets are frequently contrasted; but the ideas which they represent are, in nature, closely allied, since whatever conduces to rational recreation, and to the gratification of elegant taste, involves in its essence real advantage; and the difference between the *utile* and *dulce* consists in degree rather than in kind. On the present occasion, the subserviency of the objects described to the arts and accommodations of life are frequently overlooked, or too superficially noted. Much practical information is withheld relative to the important operations of mining, dyeing, bleaching, fishing, &c. The articles of a purely economical character are, usually, well discussed; but considerations of utility are too seldom introduced in the way of collateral remark.

5. To the curious and scientific reader, it will be superfluous to insist on the unspeakable advantage of constant and accurate ex-

ferences to the best sources of information on the various subjects which compose such an extensive performance. Authorities, however, are rarely, and only incidentally cited—a circumstance which we cannot help considering as a very serious objection to the usefulness of the work.

If much legitimate matter has been excluded from these twenty-four volumes, it cannot afford great consolation to purchasers to be informed, that the compilers have, on the other hand, enlarged them by many unnecessary additions. We will not deny that, in one sense, Natural History may embrace the consideration of every known object in the universe; in which case, a title like the present would be synonymous with that of a complete Encyclopædia; but, as the science has been commonly defined and understood, its province is far more circumscribed. In the received meaning of the expression, it takes no cognizance of human manners, nor professes to explain the magnitudes and motions of the heavenly bodies. Meteorology, Mineralogy, Botany, and Zoology, present scope enough of inquiry to the most zealous society of *savans* that ever existed, without trenching on the confines of Morality and Astronomy; and he who wanders in vain through the mazes of lexicography for the history of a pebble or a butterfly, is not to be soothed by a dissertation on the canoe of the savage, the satellites of Jupiter, or the ring of Saturn. In searching for *Amphitrite auricoma*, we found that all the species of the genus were confounded in a few short sentences; and we were fain to be contented with some very sapient remarks on popular and learned prejudices, suggested by the article *Amulet*. By way of parenthesis, the author acquaints us, that, in his *Treatise on the Education of the French*, he has demonstrated the impossibility of delivering a nation from the fetters of prejudice. In his list of talismans he is pleased moreover to reckon a bank-note, provided the bank be solvent; otherwise, the same note is only a worthless bit of paper. All this concentration of wit and philosophy, however, afforded us but little consolation for our disappointment in the main object of our pursuit. Since an article is allotted to *medals*, pictures and statues might with equal propriety have been included in the chaotic mass.

For the rest, this hastily-digested complement is by much too large for a synoptical view, and by much too small for a particular delineation of Natural History. It contains many insulated passages of singular merit; but, as a whole, its imperfections are like 'the sand on the sea-shore, which cannot be numbered.'

ART. XIV. *History of Great Britain*. By William Belsham.
Vol. XI. and XII. London, 1805. 8vo.

HAVING in a former article * given some account of the two preceding volumes of this work, we are in a manner called upon to say something of the concluding part, which is now offered to the public. In that article we took the liberty to express an opinion, which we have as yet seen no reason to alter, that Mr Belsham's mode of writing is altogether incompatible with the character of *history*. In an advertisement to the volumes before us, he professes indeed that 'he is not indifferent to the censure which the free avowal of his sentiments has incurred;' but he does not seem at all disposed to admit the justness of the censure; and accordingly, he can only prevail upon himself to plead guilty to a few expressions 'bordering upon anger and asperity.' It is pleasant to hear an author talk in this manner, who has so frequently indulged himself in the most outrageous scurrility, and contaminated the page of history with the intemperate fallies of political animosity. Mr Belsham however contends, that it is the duty of the historian to exercise the right of 'free judgment, regarding the principles and tendencies of different and opposite systems of action.' This is no doubt true: but does he really imagine that this pretext will justify, in the eyes of any candid reader, the fierce diatribes, the party spirit, and factious clamour with which his volumes abound? The right of the historian to sit in judgment upon men and systems is no longer called in question: but it is this judicial character with which he is invested, that imposes the duty of cautious inquiry, and dignified and impartial decision. It is the difficulty of preserving this indispensable candour and temperance of judgment indeed, still more than the want of sufficient information, that disqualifies most writers from delivering to posterity the history of their own contemporaries, and has usually devolved upon men of a succeeding generation the task of recording for their children the transactions of their immediate predecessors. The historian of his own times will always be suspected of partiality; and most probably will deserve to be suspected. But a writer like Mr Belsham does not maintain even the appearance of fairness. It is not the testimony of a partial witness, but the pleading of a zealous advocate; and the other

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* Vol. II. p. 177, &c. Under the title of 'Memoirs of George the III., Vols. V. & VI.,' Mr Belsham continues his narrative in the present volumes; but, having now completed his work from the Revolution, he gives to the whole collection the title of 'History of Great Britain,' of which the volumes before us stand XI. and XII.

party must be heard at equal length, before any judgment can be safely formed upon his statement.

The volumes before us are composed on the same system with those that have preceded them. A *procès-verbal* of speeches, state papers, and gazettes, eked out with comments and digressions, make up the sum of this *foi-disant* history. The eleventh volume opens with the Session of Parliament commencing in November 1798; and the author, according to custom, presents, in due form, the King's speech, with a detail of the debate on the motion of address. We afterwards meet with the discussions upon the act imposing a duty upon income; and this celebrated, and it may be impolitic, measure of finance, the author stigmatizes in the most acrimonious terms; but without once condescending to reason upon the subject.

'Notwithstanding these vain and ill-timed boasts,' says he, speaking of the minister's speech upon that occasion, 'the nation at large saw and felt that a more arbitrary and oppressive impost was never devised nor attempted by the most rapacious tyranny in any age or country.' p. 19.

Mr Belsham next passes to a very important object of parliamentary deliberation, we mean the proposal which was then brought forward, of an incorporative union between the sister legislatures of Great Britain and Ireland. Our author is favourable to this great measure; which was approved, he says, by all thinking men in England; because they saw in its accomplishment the only means of neutralizing those partial interests, which had too long possessed an exclusive sway in that distracted country. In Ireland, again, the project of union, if not ardently embraced, was at least favourably received, by the mass of the people consisting of the Catholics. Indeed, it was impossible that they should be much afflicted by the projected annihilation of a local legislature, in which they had no share, and whose tender mercies had often been cruel. But the majority even of the Protestant landed proprietors were also, according to our author, favourable to the Union; because they were not without fear, that an independent republican government might otherwise be established under the auspices of France. Without the concurrence, indeed, of the majority of these classes, the proposal of an incorporative union would have been rash and impolitic; and government, as our author observes, would have vainly exerted its influence to bring it about. But while we agree with Mr Belsham upon this interesting subject, we cannot approve of the manner in which he has treated it as a matter of historical information. Instead of giving a connected and comprehensive view of the causes which rendered this measure a matter of political necessity, and

and of the opposite interests by which it was either forwarded or opposed, he resorts to his usual clumsy and indolent expedient, of quoting a succession of speeches upon the question, by which he renders the whole view of it vague and indeterminate.

From the discussion of the projected union with Ireland, Mr Belsham digresses to the affairs of the Continent; expatiating at great length upon the military operations of the contending armies, and the revolutionary broils of the kingdom of Naples. The narrative of the military operations is exceedingly desultory; and consequently the impression which it produces is feeble and indistinct. The events which took place in the Neapolitan territory, after the French armies had been driven from Italy by the victorious Suvaroff, are narrated with considerable spirit; but in a manner which betrays the author's decided predilection for the revolutionists, and his detestation of all by whom the interests of the Royal party were espoused. His narrative is faithfully taken from the '*Sketches*' of the excellent Helen Maria Williams; of course he becomes quite impassioned, and by far too noisy, for the propriety of history. That the Neapolitans were incapable of enjoying a free government, he is however obliged to admit: it follows, therefore, that the project of a republican constitution was as absurd as it was wicked; and that the only remedy against greater evils, was the reestablishment of the government which had been unwarrantably pulled down. But although we are not disposed to weep with Mr Belsham over the prostrate democracy of Naples, we are not therefore inclined either to justify or palliate the excesses of those by whom it was overthrown. It must, however, be recollected, that the Royal government, in a justificatory memorial which it afterwards published, strongly disavows the charge of proscription; but our author neither adverts to this or any other document; having gone no farther, apparently, in search of authorities, than to the said *Sketches* of Miss Williams.

From these excursive details our historian then returns to objects more immediately connected with British annals; but it is only for a little while that he stops to shed the lights of history upon our dark and disordered political system; for he soon starts away to expatiate upon topics which seem to have greater charms for him. Meantime, he adverts to the expedition to Holland in 1799; the account of which is done up from the disaffected newspapers of that time, in Mr Belsham's own happy manner. It seems, indeed, not to be so much the intention of our historian to give a just account of the objects of that expedition, and the real causes of its failure, as to sneer at the military talents, and ridicule the despatches of the British commander in chief.

The surrender, about this period, of the valuable colony of Su-

rinam to the British arms, draws forth the following very classical passage; in which we have no doubt that the author is satisfied he has proved, in a striking manner, the gross folly of such conquests.

‘ Another possession was thus added to those Atlantean conquests, which have so invariably proved the bane of the victors, and where pestilence suspends perpetually, and by a single hair, over the votaries of avarice and sensuality, the fatal sword of death ! ’ p. 179. vol. XI.

The following paragraph forms a most appropriate introduction to the encomiastic narrative which succeeds.

‘ All France felt the full force of her past and present evils, and the imperious necessity of establishing a better order of things. She required a government capable of repairing the ruins of the political edifice; or rather of reconstructing it on more solid and durable foundations. But by what miraculous interposition was this to be accomplished? By what superhuman means was confidence to be restored, was courage to be reanimated, was civil discord to be healed, and authority, now every where spurned at, to be invigorated and confirmed? To solve these interesting questions, it is now become necessary to revert to the history of that celebrated commander, who, in the spirit of romantic enterprise, had, in the beginning of the preceding year, bid adieu to his country, in search of new adventures, and in the hope of acquiring fresh and, if possible, more verdant laurels on the opposite side of the globe. ’ p. 190.

Our eulogist accordingly proceeds to take a view of Bonaparte's concluding adventures in Egypt. The result of the memorable siege of Acre puts him in some anxiety about the military reputation of his hero. He is obliged to admit, that Bonaparte was completely foiled by a very trifling force; and that he needlessly sacrificed his soldiers after every rational prospect of success had vanished: but these untoward facts make nothing against him, in the opinion of the indulgent Mr Belsham. The following passage must amuse our readers; it alludes to that obdurate gentleman, Sir Sydney Smith, who persisted in keeping Acre from this miraculous man.

‘ A *Christian knight*, combating not against, but in aid of the Turkish miscreants, was a strange phenomenon in Palestine; and it must be owned, that the renowned *Cœur de Lion* would never have recognized him in that character ! ’ p. 198.

Our historian closely follows Bonaparte from Egypt to Paris; recording, as he proceeds, the shouts of *Vive Bonaparte*, *Vive la Republique*, with exemplary fidelity. The general, however, had resolved that the republic should not live very long: he accordingly took his measures like a great commander; and having dispossessed the Constituted Authorities in a very masterly style, he forthwith arrayed himself in the Consular insignia. All this was rendered

rendered indispensably necessary by 'the imperious necessity of establishing a better order of things.' Mr Belsham, with becoming minuteness, details the code of this new constitution; 'unquestionably entitled to be ranked among the few free forms of government subsisting in the world' (p. 237.); and he describes the blessings attending the exercise of the Consular power with his usual force and brilliancy of colouring.

'In the interior,' says he, 'Bonaparte made every effort to pacify and unite the different factions; establishing freedom of general worship; infusing confidence into every breast, harassed by the storms of the revolution, and panting for the blessings of repose. Regularity succeeded to trouble and disorder; the several branches of the military establishment were reorganized; the civil administration experienced great and essential ameliorations; and the tribunals of justice regained their activity. The list of emigrants, till this period kept open in order to be occasionally exercised as a rod of terror and of vengeance, was finally closed; and the sun of prosperity began once more to shed its benign rays on a desolated and distracted country.' p. 225.

The remaining part of the eleventh volume is chiefly occupied with the proceedings of Parliament upon the overture of peace, contained in Bonaparte's celebrated letter to the King. Mr Belsham is under infinite obligations to the journals upon such emergencies; they uniformly contribute to swell his book in a direct *ratio* to the length of the debate. Great use is therefore made of the speeches upon this occasion; the historian contenting himself with a passing sneer at ministerial influence, and 'the furious faction of the Burkites.' After the copious extracts from the reply of Mr Fox to the speech of the Minister, it would, indeed, have been great presumption in Mr Belsham to have attempted to expose the impolicy of rejecting that overture. That reply has always appeared to us one of the greatest efforts of this distinguished statesman; it has all the characteristics of the highest kind of eloquence; and it rises in excellence, even when compared with the deeply meditated and highly finished oration which called it forth. It would be going beyond the bounds of our province to enter into the question debated in these speeches.

The twelfth and concluding volume of this history opens with the correspondence between Lord Grenville and M. Otto, relative to the naval armistice proposed by the First Consul, as the preliminary to a joint negotiation with Austria and Great Britain. Mr Belsham does not affirm, that the armistice ought to have been acceded to upon the terms exacted by France; but he discovers, with his accustomed sagacity, that the negotiation was conducted by Lord Grenville in a very stupid and unstatesman-like manner; and accordingly, he treats the 'perversity and

and egregious incapacity of the English minister' with becoming contempt; reserving the meed of his high approbation for the superior 'candour and intelligence' displayed by the French commissary.

Having thus disposed of the negotiation about the armistice, the author conducts us through an erratic survey of military operations and other remarkable occurrences upon the Continent, to the dispute between Great Britain and the Northern Powers, regarding the rights of naval neutrality. He gives a full account of the origin and progress of this important controversy; which terminated, as is well known to our readers, in a convention among those powers, upon the principle of the armed neutrality of 1780. The wayward policy of the Emperor Paul, now become the soul of this confederacy, gives Mr Bellham an opportunity of exulting over the shortightedness of the British ministers, by recalling to their recollection the eulogies bestowed upon this boasted ally. He disapproves, in the harshest terms, of the conduct of this government towards Denmark; and is impatient to contrast its presumptuous folly in raising up new enemies with the 'more liberal and conciliatory policy' of the consular sovereign of France. This is the favourite theme, indeed, upon which this worthy historian delights to expatiate through the whole of his performance. Wearied and disgusted with the pitiful politics of his own country, his benevolent mind finds relief and consolation in contemplating the august spectacle of the consular government exerting all its energies to reestablish social order and universal peace. Indignant at the bigotted and injurious notions entertained of this government, he carefully indicates all the features of its wisdom and goodness; and then asks,

'Why might not a constitution which produced such great and instantaneous benefits to the community, which secured such privileges to the mass of the people, be recognized in general language as a *free* constitution, and left, undisturbed by praise or censure, to its natural and genuine operation? Vol. XII. p. 116.

Will it be believed that this liberal querist records immediately after, that under this *free* and righteous administration, one hundred and thirty-two persons *suspected* of disaffection, 'were sentenced to banishment, without even the form of trial?' (p. 122.) In spite of this, however, he continues to deprecate all censure of the government authorising such oppressions, and obsequiously endeavours to excuse the tyrant who commands them. His life having been endangered by the explosion of the *infernal machine*, this ugly adventure, we are told, infused into his mind 'an adventurous tincture of suspicion and severity not naturally belonging to it!'

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The resignation of Mr Pitt in 1801, forms one of those remarkable occurrences, upon which this judicious historian finds it necessary to have recourse to poetry, to supply the deficiencies of historical expression. The verses which he introduces to celebrate the fall of the arch-enemy of the British constitution, are borrowed, with great propriety, from that truly respectable and highly moral poet, who is known by the appellation of Peter Pindar. For the poetry, we must refer the curious reader to page 157th of this volume: meantime, we shall extract, as a very favourable specimen of his style, a laboured character of Mr Pitt, from Mr Belsham's own pen.

' This early declaration on the removal of Lord North, and the advancement of Lord Rockingham to the station of first minister, ' that he would not accept of any subordinate situation,' exhibited at once the extent and the irregularity of his ambition. In proportion as his pretensions were high, his manners were haughty. Instead of the generous feelings and noble enthusiasm of his father, he discovered a disposition selfish, cold, and artful; and it was quickly seen that he possessed no quality of youth but its presumption. In his conduct there was never found that fearless simplicity, that dignified candour, which are the genuine offspring of an elevated mind, and the true criterion of real wisdom. At no time did he display that commanding foresight which marks a superior intellect, or that controuling prudence which knows how to avert impending mischief. At no season did he endeavour to stem the torrent of public prejudice, or to make the people calm and wise, when they were inflamed and ignorant. The stream of public opinion he submitted diligently to watch; and suffered himself rather to be carried away with it, than to aim by arduous efforts to direct its course where wisdom or patriotism might suggest. The mind of the nation, under his auspices, made no advances; on the contrary, its movement was uniformly retrograde. The errors of the public, he laboured to convert to his own advantage, not to correct at the hazard of his power. He was the attentive observer of times and seasons, not the beneficent and enlightened instructor of nations. His eloquence, for which he was deservedly celebrated, was chiefly characterized by what rhetoricians call *amplification*. He possessed, in perfection, all the modes and subtleties of reasoning; and was copious even to the brink of verbosity. He had the faculty of speaking much, and saying little; and, when silence was impracticable, he knew how to make language subservient to all the purposes of taciturnity. His solemn avowals were clothed in impenetrable darkness; and his explanations were calculated equally to elude the vigilance of the watchful, and the curiosity of the inquisitive. The connexion between the means and the end, appeared seldom intimate in his thoughts, and was rarely either defined in his words, or exemplified in his conduct. The plans, therefore, which he designed, although prosecuted with courage, constancy and vigour, almost invariably failed

in the execution. It is remarkable, that during the seventeen years of his administration, no one act of patronage was extended to literature, to the sciences or the arts.' p. 167-8. Vol. XII.

The work of which we are now about to take leave, professes to conclude with the treaty of Amiens; but the author ekes out his volume with a great many extraneous details, which relate to a subsequent period; and he adds an appendix, intended to record his abomination of the present war. It would be unnecessary for us to follow him through these details, having already, we presume, said enough to enable our readers to form a pretty accurate opinion of his merits as a writer of history. The factious spirit in which these volumes are written, is so apparent, as to render it impertinent to multiply observations upon the subject. The whole work is singularly confused and desultory: and, indeed, the plan which the author adopts, is altogether incompatible with that unity and coherence which is essential to history. We are willing, however, to admit, that he displays considerable ability in some of his details, and that we meet occasionally with remarks which evince knowledge and penetration. The account of the war with Tippoo is very well given, and accompanied with some judicious observations. The celebrated controversy regarding naval neutrality, is stated with great clearness; and the author's views of the subject are, upon the whole, tolerably correct. The style of the work, although diffuse and monotonous, and sometimes even laughably puerile, is, upon the whole, perspicuous and easy. But after every concession in Mr Belsham's favour, it is impossible to allow that this motley collection has any claim to the appellation of *history*. That it will be read for some time, we do not doubt; for there are times when books of this description acquire a degree of popularity for qualities altogether unconnected with genius or merit. '*Obtrectatio et livor prunis auribus accipiuntur. Quippe adulationi fœdum crimen servitutis, malignitati falsa species libertatis inest.*' TACIT.

ART. XV. *Report of the Committee of the Highland Society of Scotland, appointed to inquire into the Nature and Authenticity of the Poems of Ossian: Drawn up according to the directions of the Committee, by Henry Mackenzie, Esquire, its Convener or Chairman. With a Copious Appendix, containing some of the principal Documents on which the Account is founded.* Constable & Co. Edinburgh. Longman & Co. London. 8vo. pp. 343. 1805.

The Poems of Ossian, &c. containing the Poetical Works of James Macpherson, Esquire, in Prose and Rhyme, with Notes and Illustrations. By Malcolm Laing, Esq. 2 vol. 8vo. Printed by Ballantyne, for Constable & Co., and Longman & Co. pp. 1211. 1805.

THIS celebrated controversy seems now to be finally at issue. Both parties have arrayed their arguments, and marshalled their proofs, so that it can hardly be expected that much will hereafter be added to the strength of either side. Although, by mingling in the approaching storm, we run the risk of a chance-blow from a Highland claymore, - or an Orcadian battle-axe, our duty to the public impels us within the reach of these ancient and formidable weapons. There is one circumstance, indeed, which greatly diminishes our danger. The state of the question is very much altered since the days of Macpherson's first publication; and we believe no well-informed person will now pretend that Ossian is to be quoted as historical authority, or that a collection of Gaelic poems does any where exist, of which Macpherson's version can be regarded as a faithful, or even a loose translation; always excepting those which he himself was pleased to produce in a state entirely unauthenticated. But there existed before the times of Macpherson, a sort of general basis of tradition, on which the poems, whether collected or composed by himself, appear to have been founded. And to understand clearly the point in dispute, we will endeavour, before adverting particularly to the works under review, to state the evidence on this head.

It is allowed, on all hands, that numberless traditions were current in Ireland concerning the Fenij or Fions, a species of militia inhabiting Leinster, and commanded by Fin MacCoul, termed by Macpherson, Fingal, the son of Comhal. Among these warriors, we recognize the well known names of Goll Mac-Morn, (Gaul, the son of Morni), of Osgur the son of Oisín, the Ossian of Macpherson, of Fergus and Fillan, and other warriors; and, finally, of Ossian or Oisín himself, who lived, like Aneurin, to 'weep and sing the fall' of his deceased friends. These traditions were mingled with others concerning a different and
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military order in Ulster, called the *Croabh Ruadh*, or Knights of the Red Branch. Of these, Connal Cearnach was chief, or Grand Master; but Cuchullin, or Cuthullin, was their greatest support and ornament. These two classes of heroes, their exploits, victories and defeats, are commemorated in a variety of poems, chiefly of the ballad structure, of which there is a large manuscript collection in the University library of Dublin, and which are still preserved among the native Irish by oral tradition. Several of these were published by the ingenious Miss Brooke, in 1789, accompanied by an English poetical version.

But Fin MacComhal and Cuthullin, were not celebrated in Ireland only. The inhabitants of Argyleshire, and other districts of the West Highlands of Scotland, had also current amongst them the tales of their exploits, and that from a very early period. The similarity of language and manners, together with the constant intercourse betwixt the Scottish Highlanders and the Irish, rendered the transmission of popular pieces of poetry from one nation to the other, a very simple and common event. But the Scottish editions of these songs do not uniformly represent the champions as being of Irish origin: on the contrary, Oscar and Fingal are sometimes expressly stated to be from Albin. That the one nation adopted these ballads from the other, is most certain; we will hereafter take occasion to inquire which has the best claim to them. Not only was the renown of Fingal thus preserved in Celtic song, but we also find occasional notices of his traditionary fame in ancient Lowland authors. When Bruce, the restorer of the Scottish monarchy, was defeated by MacDougal Lord of Lorn, he placed himself in the rear of his retiring bands, and checked the pursuit of the victors. 'Behold him,' said MacDougal to one of his leaders, 'he protects his followers against us, as Gaul the son of Morni defended his tribe against the rage of Fingal.'* This passage is from Barbour, who wrote
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* The Bruce, Book III. The particular event to which the Lord of Lorn alluded, is not now known. But both the Scottish and Irish traditions occasionally intimate, that though Gaul became the ally and friend of Fingal, it was not till after an obstinate feud betwixt their tribes, in which, according to Macpherson, Fingal's father was slain. Barbour is little satisfied with the comparison, not foreseeing the future eminence of Fingal and Gaul. 'He should rather have compared the king,' says the poet, 'to Gaudifer, protecting the rear of his army against Alexander of Macedon.' This personage, concerning whom the reader need not consult Quintus Curtius, is a hero in the *Buik of the most noble Conqueror Alexander the Great, called the Foray of Gadderis*, of which a curious, and probably an unique copy, has been lately discovered in the library of the honourable Mr Maule of Panmure.

in 1375. In a sort of interlude or theatrical exhibition, written about 1525, and occurring in the Bannatyne MS., *Wealth*, an allegorical personage, is introduced in the character of a dwarf, and jocularly affirms himself to be descended from the race of giants, quoting among his ancestors 'Fin MacCoul' and 'Gow MacMorn.' Gawain Douglas also notices these Celtic heroes among other subjects of romantic fiction.

'Great Gow MacMorn, and Fin MacCoul, and how
They suld be Goddis in Ireland as men say.'

Not to multiply authorities, the songs concerning Fingal are mentioned by Boece, and by Kirk, translator of the Psalms into Gaelic, and are reprobated by Bishop Carlwell, in 1567, 'as vain, tempting, lying, worldly histories, concerning the Suatha de Dannan, and concerning warriors and champions, and Fion the son of Cumhal,' &c. Finally, in maintaining the antiquity of these traditions, the Highlanders appeal to the names of their mountains, glens, and rivers, many of which are derived from those of the Fions, or followers of Fingal.

Under all these circumstances of evidence, it appears in the highest degree unjust to disallow a certain extent of foundation to the fabric erected by Macpherson. Johnson, to use his own simile, was entitled to deny that the ancient Celt swaggered in a pair of embroidered velvet breeches; but only the scepticism of prejudice could doubt his being accommodated with a tartan philabeg. There was every reason to suspect the affected sentimentality of Macpherson's Ossian; but, on the other hand, it was but natural to suppose, that a nation of hunters and warriors, as the Highlanders remained, almost to our own day,—a nation, the government of whose tribes was patriarchal, and therefore depended upon genealogical tradition,—with whom poetry was a separate and hereditary profession, and whose language is a dialect of the ancient Celtic, must necessarily have possessed much original legendary poetry.

Upon the other hand, it is believed that no patron of Celtic poetry, however zealous, will now venture to assume the high ground originally taken by Macpherson. That Fingal's exploits and Ossian's songs should ever have been adopted by the historian as guides through the darkness of the second and third centuries, is indeed wonderful; and it is pitiable to behold the learned and accurate Henry painfully pursuing his course by the guidance of such an *ignis fatuus*. To believe that Fingal gave battle to Caracalla, and that the eagles of Carausius fled behind the wall of Agricola at the approach of Oscar, is now too much even for the digestion of Dr Smith of Campbelltown. In fact, this system of chronology was adopted by Macpherson rather inconsiderately,
since

since it extends the green old age of Fingal, in the last of his fields, to the antediluvian period of a full-century.* Neither do we apprehend it now to be matter of controversy, that Macpherson used numerous and undue liberties with the poems which he collected; that he added, connected, retrenched, and altered, until they formed a whole, very different in aspect from the parts of which it was originally composed. This seems to be admitted by the ablest defenders of the authenticity of Ossian; and if there remain any to whom arguments are necessary on that point, they are those on whom all argument would be thrown away.

Thus we have endeavoured to fix the points which the disputants respectively seem willing to concede. But there lies betwixt them a space somewhat narrowed, yet still ample and broad enough for all the fair play of controversy,—wide as

‘ Covered field, where champions bold

Wont ride in armed ’——

The challenger who has stood forth upon this occasion is Mr Malcolm Laing, well known for his historical labours. To the second volume of this gentleman’s History of Scotland, he added a Dissertation on the Poems of Ossian, the object of which is to establish, from historical and internal evidence, that these noted productions are totally and absolutely spurious; for, although the existence of the Irish ballads on the subject of Ossian is admitted, yet it is contended, that, from these, Macpherson only adopted a few facts and names which he varied according to his own taste. The origin of the poems is imputed to the resentment which Macpherson entertained for the cold reception, his avowed production, a poem called the Highlander, had met from the public, which induced him at once to vindicate the cause of his muse, and to open his own way to literary distinction. These positions Mr Laing has illustrated, with great acuteness of research, by passages taken from the Highlander, and from other poems, sacred and profane, which he has contrasted with parallel ideas and expressions occurring in Macpherson’s Ossian.

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* Caracalla was in Britain A. D. 208. Fingal, generalissimo of the Caledonians, must have been then at least twenty-five years old. Carausius assumed the purple in 288, and took possession of Britain. How soon after that event Carausius visited Scotland, or whether he ever did so, we know not; but Fingal must then have been *one hundred and five* years old; and he probably did not engage the ‘ youthful might of Cathmor’ till some years after. These absurdities are only stated to show the gross deception which Macpherson attempted to palm on the literary world. The historical blunders of Macpherson respecting these and other events, have been ably pointed out by Mr Laing in his Dissertation.

The Highland Society of Edinburgh had, as early at least as 1797, appointed a Committee to inquire into the nature and authenticity of the Poems of Ossian, by whose direction queries, very distinctly and accurately worded, were transmitted to every one who, from personal knowledge or opportunities of inquiry, was supposed capable of throwing light upon the subject. It may be conjectured, that the labours of the gentlemen of the Committee were somewhat stimulated by the publication of Mr Laing's Dissertation, and the annunciation of another work by the same author, upon a plan so uncommon as hardly to be paralleled in the literary world. The Report of the Committee having come forth sanctioned by the name of Mr Henry Mackenzie the Chairman; there was published, about the same time, a splendid edition of 'The Poems of Ossian, &c. containing the poetical works of James Macpherson, Esq. in prose and rhyme, with notes and illustrations, by Malcolm Laing.'* The notes are intended, contrary to general usage, to destroy the authority of the text. We have seldom seen a handsomer book in execution and external appearance; and truly the editor's generosity in this respect reminded us of the proposal of the Dauphin, when informed of the wretched state of the English before the battle of Agincourt.

' Shall we go fend them dinners and fresh suits,
And give their fasting horses provender,
And after fight with them? '

We will now endeavour to give our readers some knowledge of the present state of the controversy, referring occasionally to each publication. We are the more anxious to do so with accuracy, because we really consider the question as finally at issue, and not likely to be again argued, at least by writers of the candour and respectability now in the field. As a sort of clue to guide us through the debate, and also as conveying our own ideas in words much better than we are ourselves capable of finding, we refer to the following letter from Mr David Hume to Dr Blair, as stating, accurately, the kind of evidence which, in a case of this nature, the world is entitled to expect from the defenders of the authenticity of Ossian. Dr Blair had, it would seem, applied to his celebrated friend concerning the reception of his Dissertation on the poems of Ossian, in which he had warmly maintained them to be genuine. Mr Hume, in his answer, notices the general incredulity of English men of letters upon this subject, increased both by the contumacy of Macpherson who gave himself airs of refusing to satisfy any one who doubted his

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veracity;

* In our opinion, the meaning of Mr Laing would have been more clearly expressed, had the title run, 'The Poetical Works of James Macpherson, &c. containing the Poems of Ossian.'

veracity; and by reflections on the extreme improbability that such long connected pieces should have been preserved by oral tradition during the lapse of fourteen centuries. He then points out the antidote to this prevailing scepticism.

‘ My present purpose therefore is, to apply to you, in the name of all the men of letters of this, and I may say of all other countries, to establish this capital point, and to give us proofs that these poems are, I do not say so ancient as the age of Severus, but that they were not forged within these five years by James Macpherson. These proofs must not be arguments, but testimonies. People’s ears are fortified against the former; the latter may yet find their way, before the poems are consigned to total oblivion. Now, the testimonies may, in my opinion, be of two kinds. Macpherson pretends that there is an ancient manuscript of part of Fingal in the family I think of Clanronald. Get that fact ascertained by more than one person of credit; let these persons be acquainted with the Gaelic; let them compare the original and the translation; and let them testify the fidelity of the latter.

‘ But the chief point in which it will be necessary for you to exert yourself will be, to get positive testimony from many different hands, that such poems are vulgarly recited in the Highlands, and have there long been the entertainment of the people. This testimony must be as particular as it is positive. It will not be sufficient that a Highland gentleman or clergyman say or write to you that he has heard such poems: nobody questions that there are traditional poems in that part of the country, where the names of Ossian and Fingal, and Oscar and Gaul, are mentioned in every stanza. The only doubt is, whether these poems have any farther resemblance to the poems published by Macpherson. I was told by Bourke, a very ingenious Irish gentleman, the author of a tract on the Sublime and Beautiful, that on the first publication of Macpherson’s book, all the Irish cried out, *We know all these poems; we have always heard them from our infancy*: but when he asked more particular questions, he could never learn that any one had ever heard or could repeat the original of any one paragraph of the pretended translation. This generality, then, must be carefully guarded against, as being of no authority.

‘ Your connexions among your brethren of the clergy may here be of great use to you. You may easily learn the names of all the ministers of that country who understand the language of it. You may write to them, expressing the doubts that have arisen, and desiring them to send for such of the bards as remain, and make them rehearse their ancient poems. Let the clergymen then have the translation in their hands, and let them write back to you, and inform you that they heard such a one (naming him), living in such a place, rehearse the original of such a passage, from such a page to such a page of the English translation, which appeared exact and faithful. If you give to the public a sufficient number of such testimonies, you may prevail: But I venture to foretel to you that nothing less will serve the purpose; nothing less will so much as command the attention of the public.

‘ Becket

' Becket tells me that he is to give us a new edition of your Dissertation, accompanied with some remarks on *Temora*. Here is a favourable opportunity for you to execute this purpose. You have a just and laudable zeal for the credit of these poems. They are, if genuine, one of the greatest curiosities, in all respects, that ever was discovered in the commonwealth of letters; and the child is, in a manner, become yours by adoption, as Macpherson has totally abandoned all care of it. These motives call upon you to exert yourself; and I think it were suitable to your candour, and most satisfactory also to the reader, to publish all the answers to all the letters you write, even though some of these letters should make somewhat against your own opinion in this affair. We shall always be the more assured that no arguments are strained beyond their proper force, and no contrary arguments suppressed, where such an entire communication is made to us. Becket joins me heartily in this application; and he owns to me, that the believers in the authenticity of the poems diminish every day among the men of sense and reflection. Nothing less than what I propose can throw the balance on the other side. I depart from hence in about three weeks, and should be glad to hear your resolution before that time.' Report, p. 6—8.

It is but justice to the Highland Society to acknowledge, that the list of queries, by which they prosecuted their researches, was formed very nearly upon the plan recommended by Mr Hume, although it had never been communicated to them. Nor is the moderation, we had almost said the caution, of the Report itself less remarkable than the candour of the plan of investigation. Every topic of controversy is strictly avoided, and the argument is summed up with precision and accuracy; but the evidence is given very concisely. We could have wished that the elegant and ingenious author had himself entered more deeply into the import of the testimonies which were collected, instead of leaving us to glean it from a voluminous Appendix, compiled chiefly by the far inferior hand of the late Mr Donald Smith.* This reminds us of Fingal's custom of retiring to his hill, and deputed Gaul to lead in strife. They who read for amusement, and they who search for truth, have suffered equally by this untimely secession. Surely Mr Mackenzie cannot, in this case, say, *Sat patriæ Priamoque datum!*

Upon entering into the evidence produced, we perceive at once the difficulty anticipated by Mr Hume. The names of the heroes, and some of their more noted adventures, being deeply rivetted in the imaginations of the Highlanders, it has become difficult for them to understand that it is the fidelity of Macpherson's translation which is in question, and not the existence of traditionary

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poetry

* This gentleman died after correcting the last sheet of the Appendix.

poetry respecting Ossian and Fingal. Much of the evidence produced is exceptionable, on account of this generality of expression. It is also deeply to be lamented, that many Highlanders should have attached a degree of national honour to the decision of the question of authenticity in the affirmative. It has been unnecessarily and improperly made a *shibboleth*, to distinguish the true Celt from his Saxon or Pictish neighbours; and, of course, it becomes more difficult to attain truth, in proportion as the passions take arms in the controversy. Of the species of prepossession arising from nationality felt by the author, and naturally, though somewhat comically, imputed to the adversary, the Reverend Mr Gallie's letter to the Committee affords a whimsical instance.

'As I have not seen Mr Laing's history, I can form no opinion as to the arguments wherewith he has attempted to discredit Ossian's poems: the attempt could not come more naturally than from Orcadians.* Perhaps the severe checks given by the ancient Caledonians to their predatory Scandinavian predecessors raised prejudices not yet extinct. I conceive how an author can write under the influence of prejudice, and not sensible of being acted upon by it.

'I stand persuaded, that Mr Laing's arguments cannot stagger my belief in the authenticity of Ossian's poems. Before Mr Macpherson could know his right hand from his left, I have heard fragments of them repeated, and many of those fragments I recognized in Mr Macpherson's translation.' Report, p. 39.

It is, no doubt, impossible to convince a person who is determined *not* to be convinced, at least by a descendant of the often vanquished Orcadians; yet, if the reverend gentleman had seen Mr Laing's work, he would have had the advantage of learning, that several passages, which he proceeds to quote from Ossian, refer not to the epic called Fingal, but to its ground-work, the ballad of Magnus, concerning the authenticity of which no doubt was ever started.

In like manner, when the venerable Dr Fergusson, a name dear to our letters, mentions his having heard, in early youth, a poem recited concerning an invasion of Ireland, from which he quotes a very short passage, which he recognized in Macpherson's Fingal: this also proves to be a part of the ballad of Magnus, which was adopted as the foundation of Fingal, and partly interwoven with it. In short, so artfully has Macpherson availed himself of every scrap of poetical tradition which then floated in the Highlands, that it becomes very difficult, and almost impossible, for the natives, even when as unprejudiced

* Mr Laing is a native of Orkney.

unprejudiced as the philosophical Dr Fergusson, to read them, without recognizing events, and even phrases, with which they were familiar in infancy; and hence arguing from a part to the whole. Were the ballad of Chevy Chase to be dilated into an Italian epic poem, * those who were desirous of ascertaining its authenticity would find no difficulty in procuring abundance of testimonies from persons who, in England, had heard it sung in the nursery. Of the thousands who hear poetry recited, we ought always to consider upon how few any thing is impressed, excepting the general turn of the story, and perhaps here and there a peculiarly striking expression; and where these are ingeniously wrought into a new composition, the memory of such persons affords them no accurate means of distinguishing it from the original. We will endeavour to point out the use which Macpherson appears to have made of the Gaelic poetry which he undoubtedly collected, that the reader may judge whether he ought to be considered as a translator, or as an original author.

The epic poem of 'Fingal' seems to be chiefly founded on the ballad narrating the invasion of Magnus the Barefooted, who made a descent upon Ireland, in which the bards represent him as being opposed and conquered by Fingal and the Fions, or Fenii. It contains about fifty stanzas of four lines, which Macpherson has dilated into six long books. The story is simply this—Magnus King of Norway arrives on the south-west coast of Ireland with a thousand barks. Fergus, the beloved son of Fingal, is despatched by his father to inquire the purpose of the strangers. Magnus demands the spouse of Fingal, and his dog, the celebrated Bran, in acknowledgement of subjection. These terms are rejected by Fingal with disdain. He encourages his chiefs to fight, and

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* In fact, we have now before us a volume, dated about 1600, in which the author has taken the trouble to convert this and sundry other venerable ditties into bombastic prose, not altogether unlike that of Macpherson. As for example: 'The bold English archers, in number 1500, were no sooner in manly readiness, but Earl Douglas appeared on the top of a steep hill, that descended into the plain whereon Earl Percy stood, mounted on a stately white steed; and his gilded armour, reflecting the dazzling sun-beams, shewed very gloriously, while his valiant and worthy heroes appeared in order behind them with their glittering spears,' &c. Here we have the names and incidents of the old ballad; but the simplicity is lost in the wordy profusion of the *tranprose*. Macpherson was a scholar and a poet; his execution is incomparably superior; but his plan, where he had any Gaelic original to work upon, seems to have been very similar to that of the forgotten author of 'Pleasant Stories.'

each chuses one of the leaders of the invasion as his particular antagonist. 'I myself,' says Ossian, 'although I am feeble this night, chose the King of Terman of bloody battles, and I severed his head from his body.' The array of Magnus and of the Fions is described: 'We reared the Sun-beam upon the staff—the standard of Fingal of high renown, beautifully studded with gold and precious stones, and held by us in great esteem. Many were the gold-hilted swords. Many were the standards raised upon the poles, in the battle-array of the Son of Conchal of the Feasts. Many were the spears reared over our heads. Many a coat of mail, many a chief, many a shield, and many a breast-plate; many a king's son, and many a thane; not a man without arms.'* A bloody battle ensues. The two chiefs meet and engage; their blows fall like the hammers of two smiths on an anvil; they close and wrestle; when, after a dreadful contest, in which their feet remove the stones and little bushes, Magnus falls, and is bound. Fingal generously spares his life, and offers him his choice, either to return to Norway in safety, or again to try his fate in battle. Magnus vows never again to lift his sword against his generous conqueror; and with his departure to Lochlin the poem concludes. In this sketch, the reader may perceive a rude outline of Macpherson's epic. But the introduction of the previous battle betwixt Cuthullin and Swaran, and all the details, which extend the contest to no less than six books, are unauthenticated by any Gaelic original.

* Although we disapprove of Miss Brookes's plan of translating these poems in the English ballad style, we cannot help subjoining the following stanzas, as a pleasing specimen of the accuracy and taste of that ingenious lady.

- Before us, on the crowded shore,
Their gloomy standard rose;
And many a chief their navy bore,
And many princely foes.
- And many a proud and bossy shield,
And coat of martial mail,
And warlike arms of proof they wield,
To guard, or to assail.
- And many a sword, with studs engraved,
In golden pomp was there;
And many a silken standard waved
Its splendid pride in air.
- And many a chief in fight renowned,
Fin of the Banquets led;
And many a helmet darkly frowned
On many a valiant head.

original. Pieces, however, are here and there inserted from detached ballads, which the translator pressed into his service. Thus we have the famous description of Cuthullin's chariot; the war-song of Ullin; the wooing of Ossian; the Maid's Tragedy, * a well-known Gaelic poem, which is the groundwork of the episode of Fainafolis and Borbar king of Sora, and probably a poem, now imperfect, on which was founded the tale of Agandecca. All these are separate pieces, unconnected with each other, but the genuine offspring of the Celtic muse.

The 'Battle of Lora,' the next piece for which any authority has been recovered, is founded on the poem called Erragon. The incidents are related by Macpherson with considerable accuracy; the diction is as different as east from west. Of this observation the following is a sufficient example.

'Son of the distant land, who dwellest in the secret cell! do I hear the sound of thy grove? or is it thy voice of songs? The torrent was loud in my ear; but I heard a tuneful voice. Dost thou praise the chiefs of thy land; or the spirits of the wind? But, lonely dweller of rocks! look thou on that heathy plain. Thou seest green tombs, with their rank whistling grass; with their stones of mossy heads. Thou seest them, son of the rock; but Ossian's eyes have failed.

'A mountain stream comes roaring down, and sends its waters round a green hill. Four mossy stones, in the midst of withered grass, rear their heads on the top. Two trees, which the storms have bent, spread their whistling branches around. This is thy dwelling, Erragon; this thy narrow house: the sounds of thy shells have been long forgot in Sora. Thy shield is become dark in thy hall. Erragon, king of ships! chief of distant Sora! how hast thou fallen on our mountains? How is the mighty low. Son of the secret cell! dost thou delight in songs? Hear the battle of Lora. The sound of its steel is long since past. So thunder on the darkened hill roars, and is no more. The sun returns with his silent beams. The glittering rocks, and green heads of the mountains, smile!

'The bay of Cona received our ships from Erin's rolling waves. Our white sheets hung loose to the masts. The hoisterous winds roared behind the groves of Morven. The horn of the king is sounded; the deer start from their rocks. Our arrows flew in the woods. The feast of the hill is spread. Our joy was great on our rocks, for the fall of the terrible Swaran. Two heroes were forgot at our feast. The rage of their bosoms burned. They rolled their red eyes in secret. The

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* Of this there is a copy published in the Report, p. 95. It is one of the most popular tales of the Fions. The savage monarch who pursues the flying damsel, is sometimes said to traverse the waves on an enchanted steed; but this probably arises from some equivocal expression in the original—as the Scalds term a ship the rider, and sometimes the horse of the ocean.

high bursts from their breasts. They were seen to talk together, and to throw their spears on earth. They were two dark clouds, in the midst of our joy ; like pillars of mist on the settled sea. They glitter to the sun ; but the mariners fear a storm.

" Raise my white sails," said Maronnan, " raise them to the winds of the west. Let us rush, O Aldo, through the foam of the northern wave. We are forgot at the feast : but our arms have been red in blood. Let us leave the hills of Fingal, and serve the king of Sora. His countenance is fierce. War darkens around his spear. Let us be renowned, O Aldo, in the battles of other lands ! "

' They took their swords, their shields of thongs. They rushed to Lumar's resounding bay. They came to Sora's haughty king, the chief of bounding steeds. Erragon had returned from the chase. His spear was red in blood. He bent his dark face to the ground ; and whistled as he went. He took the strangers to his feasts : they fought and conquered in his wars.

' Aldo returned with his fame towards Sora's lofty walls. From her tower looked the spouse of Erragon, the humid, rolling eyes of Lorma. Her yellow hair flies on the wind of ocean. Her white breast heaves, like snow on heath ; when the gentle winds arise, and slowly move it in the light. She saw young Aldo, like the beam of Sora's setting sun. Her soft heart sighed. Tears filled her eyes. Her white arm supported her head. Three days she sat within the hall, and covered her grief with joy. On the fourth she fled with the hero, along the troubled sea. They came to Cona's mossy towers, to Fingal king of spears.' p. 273-78.

The original ballad tells us simply, that one day when St Patrick had no psalms to sing, he went to Ossian's house, and asked him to tell what was the greatest danger that ever befel the Fenii. Ossian answered literally thus.

' Fin, at a feast in Almhuin, in the age of heroes, forgot some of the Fions on the Red Hill, which excited their anger and resentment. " Since you did not admit us to the honour of the feast," said Maronnan of the sweet voice, " I and the noble Aldo withdraw ourselves for a year from the service of Fin." They silently, at their departure, put their shields and swords on board their ships. The two noble chiefs went to the kingdom of Lochlin of polished reins. The fair champions were for a year the friends of the king, the son of royal Conchar of sharp weapons, and Aldo who never refused a request. The Queen of Lochlin of brown shields conceived a strong passion, which she could not conceal, for long-haired Aldo of arms. With him she carried her deceit into execution, and fled from the bed of the king.'

This we are inclined to consider as a fair specimen of the manner in which Mr Macpherson has embellished those incidents which he unquestionably derived from an ancient original ; and we leave it to our readers to determine, whether such a performance can, with

with any propriety, be considered as a translation. In the original ballad there is no splendid scenery, no sentimental exclamation, no romantic effusions of tenderness or sensibility; it is a matter-of-fact statement, in which the intrigue is narrated as plainly as it would have been in a case of *crim. con.*; and the venerable Ossian tells his story to St Patrick in the style of a half-pay officer describing his campaigns to a country parson.

'Carthon,' the next poem, is founded upon the tale of Conloch natural son of Cuchullin, who, educated in Scotland, comes to Ireland, encounters his father without being known to him, and is slain by him. Macpherson has laid the scene in Scotland, at the expence of much probability, since the vicinity is so much increased betwixt the father and son, that it appears impossible but that they must have known, or at least have heard of each other. But the evidence with respect to one remarkable passage, and Mr Laing's answer, is too remarkable to be suppressed. The address to the Sun, with which the poem concludes, has long been among the most suspected passages in Macpherson's Ossian, as resembling extremely Satan's address to the Sun in the Paradise Lost. But in the Literary Journal, the following paragraph quoted by Mr Laing, was calculated to remove our suspicions.

'We are happy on this occasion to be able to produce the *original* of the Address (to the Sun in Carthon), taken down from the mouths of persons who had it from their ancestors, and who had committed it to memory before Macpherson was in existence. A copy of the address in Gaelic was taken down from the mouth of an old man in Glenlyon, by the Rev. James Macdiarmid of Weem, in 1765. Another copy of it was taken down by a Captain Morris, from the mouth of an old man in the Isle of Sky, in the year 1763, and was by Captain Morris given to the Rev. Alexander Irvine of Rannoch. Both of the old men had committed this poem to memory in their younger years. These two copies, taken down by persons unknown to each other, from the mouths of persons equally unacquainted, and living at a great distance of place, we have compared, and found to correspond almost exactly: we give the one taken down by Captain Morris, without the least variation, to the public.—As this address is attested by respectable witnesses, still alive, to have been in the mouths of the common people long before the birth of Macpherson; Mr L. has on this occasion to find out some other imitator.'

To this positive assertion, Mr Laing, who asserts that the son of Mr Macdiarmid is an editor of the Literary Journal, answers, 1st, That Captain Morris, or Morrison, was an amanuensis of Macpherson, and obtained his copy of the address, not from an old man in the Isle of Sky, but from the papers of Macpherson himself, *as appears from Captain Morrison's own evidence.* (See Report, page 176.) 2^{dly}, In respect that Captain Morrison admits his having given away a copy of this address as far back as 1780, to Mac-

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kinnon of Glendaruel, Mr Laing argues, that it must be inferred that the other copy belonging to the Reverend Mr Macdiarmid, was obtained directly or indirectly from the same source, and consequently, that the old man of Glenlyon, is a personage as imaginary as the old man of Sky, or the Old Man of the Mountain. And he shrewdly observes, that Mr Macdiarmid's copy exactly coincides with one obtained from Morrison, by the Reverend Mr Irvine of Rannoch, while it differs in six lines from another copy given by the same gentleman to Glendaruel. 'It will not be now pretended,' says the critic, 'that Morrison gave one copy to Mackinnon with the variation of six distinct lines, and afterwards another, coinciding most exactly, and by mere accident, in these identical lines, with the old man of Glenlyon's version.' Upon the first of these points, concerning the old man of Sky, there is no doubt that the statement in the Literary Journal is incorrect, because Morrison has himself told us, that he got the address from Macpherson. On the second point, we have more hesitation. The affirmation that the passage was obtained from the old man of Glenlyon, is contained in a letter by Mr Macdiarmid to his son. We do not observe that it is repeated in the course of his direct intercourse with the Committee. We believe Mr Macdiarmid's personal character to be irreproachable, and therefore cannot refuse weight to his direct testimony. At the same time, we could have wished to have seen it fully explained and deliberately confirmed in the Report.

'The death of Cuthullin.' For this piece, no Gaelic original has been discovered. We believe Macpherson to have been ignorant of a very wild Irish poem or tale on this subject, of which a translation now lies before us. It imputes the death of the hero to the arts of magic, and, amidst the greatest extravagancies, contains some very striking passages.

'Darthula' is well known in the Highlands, under the name of Deirdre; but the story is materially altered, as it appears in Macpherson, and is adapted to the plan of Temora, which the author was then revolving. One of the most ancient manuscripts recovered by the researches of the Highland Society, contains a copy of this poem; and we willingly extract a part of it as a genuine specimen of Celtic poetry, of indisputable purity and antiquity.

'Lovely land is that eastern land,
 Albion with all its lakes,
 O that I might not depart from it!
 But I depart with Naos.
 Lovely is the tower of Fidga, and the tower of Fingal.
 Lovely is the tower above them.
 Lovely the isle of Drayno,

And

And lovely the tower of Suvno.
 But, alas ! the wood, the bay, which Ainle would approach,
 Are left by me and Naos for ever
 Upon the coast of Albion.
 O vale of Laith ! would I were sleeping by its soothing murmur !
 Fish and venison, and the choice of the chase prepared,
 Would be my repast in Glenlaith.
 Glenmafain ! high grow its herbs, fair wave its branches,
 Steep would be the place of our repose
 Over the grassy banks of Mafan.
 O vale of Etha ! where a first house has been built for me,
 Delightful were its groves, when the sun risen to his height
 Would strike his beams on Gleneiti.
 How I long for the vale of Urchay !
 Straight vale of the fairest hills ;
 Joyful were his companions around Naos
 In Glenurchay.
 Vale of Daruadh !
 Pleasant to me would be each of its people :
 Sweet is the note of the cuckoo
 From the bending tree of the mountain
 Above Glen-da-Ruadh.
 Lovely is Drayno of the sounding shore !
 Lovely is Avich of the brightest sand !
 O ! that I might not depart from it west.
 But I depart with my love ! ' App. to Rep. p. 299.

In this extract, there are some gleams of poetry and pathos such as usually occur in the ballads of a rude age, mixed with the repetitions and *verbiage* with which they always overlay them. But we fear the silence of the Report, is a tacit admission, that neither the Address to the Moon, with which Macpherson opens his poem, nor the song of Cairbar's hundred bards, with which it concludes, and perhaps not a single passage, of any length or importance, betwixt the one and the other, are to be found in the ancient manuscript, as, on the other hand, the passage quoted from the latter, is altogether inconsistent with Macpherson's Darthula.*

' Carrick Thura.' This poem is chiefly remarkable, as containing the encounter of Fingal with the Spirit of Loda. We are favoured, in the Report, with the original Gaelic from the copy of Mr Macpherson himself, with a literal Latin translation, which, as might have been expected, coincides exactly with the English version. But no mention of the Spirit of Loda occurs in Gaelic poetry,

* Deirdre is a Scottish woman, and the sons of Ufnath are Irish, and nephews of Cuthullin ; but Macpherson reverses the country of the lady and the warriors.

poetry, saving in the very sophisticated collection of Kennedy. The name is imitated from Odin; but no one ever heard of the *Circles* of Odin, or of the Spirit of Odin, not to mention that the Northern legislator was probably contemporary with Fingal. There is an Irish ballad concerning an apparition, called the Spirit of Murartach, which came walking upon the waves to attack the host of Fin. It is sometimes called a spirit, sometimes a beast or monster, and, after making much havock among the Fions, was, in the latter capacity we presume, slain by Fingal. This is perhaps referred to in the *Little Interlude* already mentioned,

———— ‘Fin MacCoul

Quha dang the Deel and gard him youl.’

‘Lathmon’ has, as usual, some foundation in Celtic poetry. The tale of Lammon Mor, or Lathmon the Great, begins more in the style of Macpherson’s Ossian than most of the Gaelic poems. It opens with an address to Dun-Lathmon (*i. e.* the strength of Lathmon), a hill so called, because, after having ravaged Almuin (the Selma of Macpherson) Lathmon fortified himself on that mountain, where he was defeated and slain by Osgur.

‘Long is it ago, high eminence,

Since were seen on thy tops

The mighty host who would not yield to any,

Though thou art without house or hold to-day.’

But the reader will look in vain for the story of Lathmon, as told by Macpherson, for the night attack by Ossian and Gaul, and for all the imagery which Blair has extolled as diversifying the scenes of military carnage.

The first book of Temora, made a part of Macpherson’s first publication. It seems to be founded on the poem celebrating the fatal battle of Gabhra, in which Osgur and most of the Fions were slain. The circumstances of the quarrel at the feast, Cairbar’s demand of Osgur’s spear, and much of the beautiful description of that hero’s death, are to be found in the Cath-Gabhra. A traditionary race of heroes is often thus represented as extirpated in one unfortunate battle. The defeats of Camlan and Roncesvalles, were as fatal to the fabulous chivalry of Arthur and Charlemagne, as that of Gabhra to the Fions. It was natural to ascribe a grand and striking catastrophe to the persons who had figured in so splendid a drama. Macpherson has, however, totally altered this conclusion, and thereby laid the foundation for the succeeding events in Temora, the composition of which he then meditated.

All these pieces, with two or three others, are contained in Macpherson’s first publication. As he advanced in fame, he became more regardless of detection; and for the poems in his second volume, no genuine authorities can be found. The whole

of

of Temora, except the death of Oscar, is his own composition. This seems to be indirectly admitted in the Report, p. 153. 154.

We have thus briefly noticed almost all the originals which can now be produced for the poems of Ossian. It is remarkable that they have all reference to Macpherson's first publication, in which, doubtless, he thought it necessary to preserve a certain degree of caution, and to give as much authenticity to his poems as he could, consistently with his plan of kneading them into a cake of the right leaven for the sentimental and refined critics, whom it was his object to fascinate. Every tradition or morsel of ancient poetry which he could pick up, seems to have been carefully inserted in what seemed to be an advantageous and even prominent place; so that each piece was sure to recal to the Highlander some traditionary fact or legendary story with which he was well acquainted, and which, perhaps, few were displeased to recognize in a garb so different from its native and rude dress, as to interest the admirers of poetry through all Europe. The weaving a web in which truth and falsehood should be warped and blended together in inseparable union, was too material an object, for Macpherson to neglect any means to accomplish it. We should, therefore, even without the very respectable testimonies which have been brought forward by the Highland Society, have been most willing to believe that he made every exertion in his power to collect the remnants of legendary tales relating to the Fions, simply because it was his obvious interest to do so, if he meant to carry on his intended imposture with the least prospect of success. We also have no doubt that he was able to recover manuscripts perhaps of some antiquity, containing copies of the ballads, which he afterwards wrought up into epic poems. Nay, we are willing to go a good deal farther, and to allow that Macpherson may have collected and used many original poems now lost. Indeed, as is well stated by Mr Mackenzie, much difficulty must have arisen in the course of the Committee's investigation, 'from the change of manners in the Highlands, where the habits of industry have now superseded the amusement of listening to the legendary narrative, or heroic ballad; where, consequently, the faculty of remembering, and the exercise of repeating such tales and songs, are altogether in disuse, or only retained by a very few persons of extremely advanced age, or feeble health.' But still the great question remains to be solved,—Did Macpherson's translation of these poems, however numerous, correspond to the tone and spirit of the original; or were the expressions, the sentiment, the description in the greater part of them, his own; the story and the names alone adopted from the Gaelic?

On this point, we cannot help thinking that Mr Laing ought to have printed with the *Ossian* of Macpherson, the ballads on which it is in part founded, and which are also referred to, both by individuals in the Highlands, and by the Committee themselves, as forming some of his originals. We have endeavoured to supply this deficiency, by giving extracts from them in the course of our investigation; and, considering that much allowance ought to be made for the debased state of poetry preserved by oral tradition, we have endeavoured to select the most poetical passages. Still, however, the reader must have observed a prodigious and irreconcilable difference betwixt the *Ossian* of Macpherson and such of those ballads as come forward altogether unsophisticated. The latter agree in every respect with the idea we have always entertained of the poetry of a rude people. Their style is unequal; sometimes tame and flat; sometimes turgid and highly periphrastic: Sometimes they rise into savage energy, and sometimes melt into natural tenderness. The subject of most is the battle or the chase: Love, when introduced, is the love of a savage state. *Ossian* comes to the dwelling of Branno of silver cups, and demands his daughter in marriage: she is betrothed, without being consulted; and gives her hand to *Ossian*, whom she had then seen for the first time. In manners, the heroes are as rough as the ladies are frank and condescending. The wrangling which pervades their councils, the jealousies betwixt Fingal and Gaul, are peculiar to a savage tribe; since the latter (we grieve to speak it) did not hesitate to knock the tuneful Carril upon the head for disputing with him the property of a beef-steak dressed with onion sauce; (Appendix to the Report, No. XXII.) It is surely unnecessary to contrast these barbarous chiefs with the followers of Macpherson's Fingal: there, all is elegance, refinement, and sensibility; they never take arms, but to protect the feeble, or to relieve beauty in distress; they never injure their prisoners, nor insult the fallen: And as to Fingal himself, he has all the strength and bravery of Achilles, with the courtesy, sentiment, and high-breeding of Sir Charles Grandison. But this difference is neither the most striking nor the most indelible mark of Macpherson's manufacture. He has not only refined and polished the manners of his heroes, but he has added to the tales a system of mythology, and a train of picturesque description and sentimental effusion, of which there is not the least trace in any Gaelic originals, saving those of Smith and Kennedy. The ghosts, which are the eternally recurring subject of simile and of description, we cannot trace in any of the Gaelic ballads. Macpherson was probably puzzled about his mythology, which the critics of that time thought essential to an epic poem. Christianity was out of the question, since it must have brought his heroes

to a later period than was convenient; and it being a matter of great risk to imitate George Psalmanazzaar, by inventing for the Fenii a new system of supernatural belief, he was forced to confine himself to the vulgar superstition concerning the spirits of the departed, common to the Highlanders with the ignorant in all nations, and which, if it promised nothing very new or striking, had the advantage of not exposing him to detection. The translator of Fingal seems indeed to have resolved, with the steward in Gay's *What-d'ye-call-it*, that the reader should not only have ghosts, but a plurality of them; and, though attended with great effect on some particular occasions, the frequent and useless appearance of these impotent phantoms, impresses us rather with contempt, than with fear or reverence. The situation of Ossian himself is another circumstance which Mr Macpherson has heightened and improved, so as to produce much poetical effect. In the genuine poems, indeed, he often alludes to his age; but the frequent and pathetic reflections—those effusions of sentiment, sometimes beautiful, and sometimes bombastic, are only to be found in Macpherson's version. In the original, the Wooing of Everallin is addressed to a young woman who had refused Ossian a drink, unless on certain conditions, which the aged bard was incapable of accepting. She then applied to him the contemptuous epithet of old dog. 'He is a dog,' answered the bard, 'who is not compliant; I tell you, wanton girl, I was once valiant in battle, though I am now worn out with years. When we went to the lovely Eivir of the shining hair,' &c. This is, by Macpherson, thus happily altered and applied to Malvina, the widow of Oscar; 'a fictitious personage,' says Mr Laing, 'for whom there is no foundation even in tradition.' 'Daughter of the hand of snow, I was not so mournful and blind, I was not so dark and forlorn, when Eivirallin loved me; Eivirallin with the dark brown hair, the white-bosomed daughter of Branno.'

We would not wish the Gaël to misunderstand us. We do not affirm that their ancestors were incapable of generous or kindly feelings; nor do we insist that their poetry, to be authentic, should be devoid of occasional sublimity, or even elegance. We only say, that the character of all rude poetry, whether in diction or sentiment, is inequality; that bursts of generosity, flowing from the feeling of the moment, and not from the fixed principles acquired in a civilized society, will always be attended by an equally capricious and irregular exertion of the angry passions. We believe it is Byron who mentions, that an Indian, who had just saved his life, was going, an hour after, to murder him for throwing away a mussel shell. The passions and feelings

of men in a savage state, are as desultory as their habits of life ; and a model of perfect generosity and virtue, would be as great a wonder amongst them, as a fine gentleman in a birth-day suit. Neither is it a sufficient answer, that Ossian may have exaggerated the virtues of his countrymen, as is ingeniously urged in the Report, p. 150. Ossian, however gentle or generous his natural disposition, can hardly be supposed to have formed for his countrymen an ideal standard of perfection, depending on a refinement drawn from the internal resources of his own mind, and inconsistent with all he witnessed around him. We might also have expected to have met with some peculiarities respecting the manners of the ancient Celts, in genuine poems of the length of Macpherson's. But, alas, what hints of this kind occurred in the original ballads or legends, were rejected by the fastidious delicacy of their translator ; and what is substituted in their place, is obviously drawn from sacred or classical poetry. Thus, the daughters of Morven mourned for Lorma one day in the year, as the daughters of Israel mourned yearly four days for the victim of Jephthah's vow ; and, we fear, no better authority than the fables concerning the passage of the Styx will be found for the ghosts hovering on the Lake of Lego, until the song of the bards had dismissed them to the winds. ' The honour of the spear ' is also mentioned, and explained as a tournament, when the natives of Argyleshire were strangers to the use of horses, except for draught, as the rest of Europe were to the Tournay, which certainly was not introduced before the 10th century.

The elegant author of the Report has, in opposition to these arguments, produced specimens of Celtic poetry, supplied by Dr Smith of Campbelton, with the following observations :

' This publication by Dr Smith, if not impeached in its authenticity, your Committee cannot but regard as very strong evidence in the question submitted to its consideration and inquiry ; since, in the poems published by him, are to be found not only the same strain of high and impassioned poetry, but also the same delicacy and refinement of sentiment and feeling which form so extraordinary a feature in the poems translated by Mr Macpherson. Of some passages of one of those poems, ' the Death of Gaul, ' the Committee will give a literal translation, which they think inferior to none of those given by Macpherson, either in sublimity or tenderness. '

Of the specimens which follow, and which are exceedingly beautiful, and fully equal to the best of Macpherson's poetry, we select the Bed of Gaul.

' Prepare, ye children of musical strings,
The bed of Gaul, and his sun-beam by him,
Where may be seen his resting-place from afar,
Which branches high overshadow,

Under

Under the wing of the oak of greenest flourish,
Of quickest growth, and most durable form,
Which will shoot forth its leaves to the breeze of the shower;
While the heath around is still wither'd.

‘ Its leaves, from the extremity of the land;
Shall be seen by the birds of summer,
And each bird shall perch, as it arrives,
On a sprig of its verdant branch.
Gaul in his mist shall hear their cheerful note,
While virgins are singing of *Evirchoma*.

‘ Until all of these shall perish,
Your memory shall not be disunited;
Until the stone crumble into dust,
And this tree decay with age;
Until streams cease to run,
And the source of the mountain waters be dried up;
Until there be lost, in the flood of age,
Each bard, and song, and subject of story,
The stranger shall not ask, ‘ Who was *Morni's* son?

Or where was the dwelling of the king of Strumon?’ *Rep. p. 67:*

Of this poem Mr Macdiarmid has also furnished the Committee with a copy. But this passage of the *Bed of Gaul*, Mr Laing treats as ‘ *a well known fabrication, which assuredly the author himself would not now, as a christian and as a clergyman, venture to attest upon oath as authentic.*’ Mr Laing has not favoured us with the grounds for so positive and direct a charge against Dr Smith. On the other hand, that gentleman himself does not, in his communication with the Committee, discover great zeal either in vindicating the originality, or defending the poetical merit of the poems he collected. He complains of the neglect with which his Gaelic poetry was treated by the public, and seems to have forgotten, or to be little desirous of recollecting any thing upon the subject. This challenge will, however, probably call him forth. If Dr Smith makes the proposed attestation, Mr Laing will see ground to repent having committed himself on so bold an avowment. If not, we shall be decidedly of opinion, that the Doctor is a very elegant poet; and we hope he will find a better employment for his verses than to paper closets, a use to which he applied the last copy of his book; a copy of more service to him, he says, than all the others. It is but proper to add, that the extracts from the *Death of Gaul*, to which Mr Mackenzie refers, are not only uncommonly beautiful and pathetic, but are in a much chaster style of beauty and pathos than is characteristic of Macpherson's poems; circumstances which we think in favour of their authenticity.

The poems collected by Kennedy, a schoolmaster in Argyle-

shire, labour under yet stronger marks of suspicion. The collector communicated some of them to Dr Smith, who candidly states,

‘ On my observing the beauty in one or two of the passages in one of those poems, I forget which, the person who gave it me as an ancient poem said these were of his own composition. This assertion I placed then to the account of his vanity, but I think it right to state it to you as I had it, and leave you to think of it what you please.’ App. to Rep. p. 89.

The Highland Society have purchased Kennedy’s manuscripts; but we think it strange, considering the compiler is still alive, that no inquiries seem to have been made how far he is now disposed to affirm or retract what he averred to Dr Smith. There is, no doubt, much ancient poetry in his collection; for much is authenticated from other authorities; but, in such suspicious circumstances, we should like to have learned whether, and in what degree, they are interpolated. There is in the Appendix a comparison of poems, which appear under the same title in Miss Brookes’s collection and Mr Kennedy’s. The first is that of Conloch, as to which it is *not* mentioned that it is the original of Macpherson’s Carthon, however different in structure and diction; * the second is that of Manos, or Magnus; the third that of Moira Borb. In all these the narrative of Kennedy is longer, the diction less simple, and garnished more profusely with those flowers of sentiment which Macpherson had taught the public to consider as the genuine attribute of Ossianic strain. We cannot help regarding these poems as in a very suspicious state. According to the averment of Kennedy to Smith, they do contain interpolations; and they come before us altogether unvouched and untested, not even certified by the evidence of the person by whom they were collected. Kennedy’s situation in life has been alluded to; and it is asked how imposture and forgery should become *Muses* to such a man? But let us reflect how many Scottish rhymers arose from the lowest ranks, animated by the fame of the Ayrshire Ploughman, and then consider whether the far more splendid success of Macpherson was less likely to be a source of inspiration, in a country where romantic scenery and natural enthusiasm are themselves a sufficient impulse to poetic talent.

Hitherto we have considered the general evidence arising from Gaelic ballads of unimpeached authenticity, and the collateral arguments drawn from the certainty, that poetry was early current among the Highland tribes, and that some which has been

* In many respects this would have been an injudicious admission; for it seems this is not a poem of Ossian, but the joint production of a bard called Gilcolm, the son of a physician, and of an anonymous continuator.

been recovered, equals, in sentiment and beauty, the translations of Macpherson. But our readers may ask, have no originals been recovered, nothing approaching nearer to the poems of Ossian as translated into English, than the rude strains of Deirdre, Cath-Gabhra, and the other legendary ballads which we have enumerated? We may be further asked, are there no manuscripts of antiquity and authority, and what has become of those to which Macpherson and others have referred in the controversy?

To the first of these queries, we return the answer of the Report, '*That the Committee has not been able to obtain any one poem the same in title and tenor with the poems published by Macpherson.*' A poor substitute, unworthy of the liberality which pervades the Report itself, has been resorted to in the Appendix, which we have already noticed as the production of a less impartial and less able pen than that of Mr Mackenzie. We describe it in the words of Mr Laing, which, though stern and harsh, are but too applicable to this disingenuous expedient.

'Instead of complying with this plain and pointed requisition, the Committee of the Highland Society employed the late Dr D. Smith, to collect such passages from their MSS. as might bear, or acquire, a remote affinity to Macpherson's Fingal. For this purpose, thirteen or fourteen *modern* manuscripts were taken, containing many hundred pages, and consisting of different collections of Earse and Irish poems. From this extensive range, between twelve and fifteen hundred detached lines are selected, and pieced together, with the most preposterous diligence, in order to present to the reader, by dint of translation, something like the plan and outlines of Fingal. No intimation is given of the particular songs or poems from which they are taken; but the references to the different pages of the MSS. are as desultory as the lines themselves are unconnected and detached. For instance, the three first lines, concerning Daol watching the ocean, (as if the same with Moran, the scout of ocean), are taken from Kennedy's Collection, p. 78, ft. 8.; the eight next lines, (a part of the Irish ballad of Garibhe Mac Staun), from Fletcher's, p. 183, stanzas 11th and 13th; the three succeeding lines from Fletcher's, stanza 2d; and the six last lines of the first page, are taken from the four different pages and stanzas of the following manuscripts; Mr MacLaggan, p. 91, l. s. 3. Kennedy, p. 154, ft. id. p. 130, ft. 5. id. p. 154, ft. 3. Six successive lines in the same paragraph, are often taken from four or five different pages of different manuscripts; and in a single page (248) twenty-two lines are taken from fifteen different pages of ten separate and distinct manuscripts. This, if practised in any other language than Earse, would be termed fabrication.' Pref. p. 44—46.

This curious piece of Mosaic or patch-work, was likened, in our hearing, to the expedient of Brother Martin in the Tale of

a Tub, to discover authority in his father's will for wearing *shoulder-knots*, which, not being expressly mentioned, he sought first *totidem verbis*, then *totidem syllabis*, and all failing *totidem literis*. If this effort of ingenuity proves any thing, it only shews what a very slender proportion, even the scraps of Gaelic poetry, actually collected by Macpherfon, bore to the whole he has produced, and from how many different sources he has been obliged to compose this *Cento*, called an epic poem. If he sought in twenty different poems the materials of a few pages, from how many others must the rest have been selected, supposing it not to be his own production?

As to manuscripts, none have been discovered, which have any claim to antiquity, bearing relation to the poems of Ossian. The ancient manuscript, already quoted, containing Deirdre, only serves to shew, that Macpherfon, in converting the story into that of Carthon, manufactured a ballad, written by another bard, into a tale of Ossian. That Macpherfon collected, and was possessed of several manuscripts, is proved by sufficient evidence. What they contained is absolutely unknown; for none of them are now to be found among his papers; nor has any one who saw them been able to ascertain their contents. Their being now destroyed, is certainly a presumption that they contained nothing to support his translation, or rather, that he was apprehensive of their being contrasted with it. Some ancient manuscripts have been recovered by the researches of the Committee, chiefly the produce of cloister leisure, which probably was not often thus occupied, as one amanuensis avowedly breaks off for lack of ink. But nothing of Fingal, Temora, or any of the long compositions which Macpherfon represented as so popular, have been found in manuscript, any more than in oral tradition. The only manuscripts, therefore, are those of Macpherfon himself, who doubtless composed in Gaelic with the same or greater facility than in English.

Much stress is laid by the Gaelic critics on the antiquity of the poems ascribed to Ossian, as they have been found fairly written out in Macpherfon's own hand. We do not pretend to understand the Gaelic; but it requires only common sense to observe, that those who make this observation have no *data* upon which to found it. The antient MSS. in the Highlands are few, and the character unintelligible, unless to perhaps a dozen of scholars, to whom they have generally been inaccessible. On what grounds, then, have the gentlemen, who use this argument, formed their opinion upon the antiquity of the dialect used by Macpherfon? And will they affirm themselves less open to imposition, with their slender opportunities of detection, than those hoary antiquaries

antiquaries who, having made the early language of England the object of their daily investigation, with written specimens before them of its progress in every stage, were grossly duped by Chatterton, a beardless stripling of seventeen? Nothing is more easy than to smoke into antiquity the mere language of a poem, if a man is sufficiently acquainted with the history and manners of the age to which he would refer it, or, like Macpherson, is contented to set those circumstances at defiance. We dismiss that general testimony, which is too often hazarded without recollection, with this observation, that though the particular subject to which it refers be supposed obscure, yet there are general rules which must apply to it, as to all others. It is astonishing how warm feelings of enthusiasm have led the most respectable characters in this controversy to affirm, from internal conviction gratuitously adopted, what they could never have satisfied themselves of by their own actual labour and research. *

Osian's poems, edited by Mr Laing, prove in a striking manner, how far an active, eager, and keen disposition will carry a man of learning and talents in the pursuit of a favourite, although apparently an inadequate object. The arguments contained in his original dissertation, preface, and general notes, did not appear to him sufficient to secure 'the triumphant satisfaction of having detected the imposture.' He was determined to hunt him down in all shapes; and accordingly has gone through a mass of poetry, enough to serve any six gentle readers for their lifetime, with the sole purpose of pointing out every passage which occurred to him as parallel to an expression of Macpherson's. We fear that, in this perusal, the poets must have afforded Mr Laing as little amusement, as the Bible gave instruction to him who read it through, in order to learn how often the conjunction *that* oc-

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curred

* An ingenious lady, herself no mean poetess, volunteered her testimony upon the authenticity of Osian's poems, and argued learnedly upon the mode of their preservation during the lapse of so many centuries. Her evidence is referred to by the Committee. The same lady describes the battle of Killcranky, as an engagement 'betwixt a body of Highlanders, led by Viscount Dundee, and King William's troops, commanded by General Mackay, where *both* leaders fell; and the victory remained with the *latter*, after a great havock among the Highlanders, many of them men of note, who still continue to live in grateful song.' We suppose the bards, who celebrated the battles fought in the *Rin Ruaradh* 'in numberless heroic ballads,' are answerable for the inaccuracy of the ingenious Mrs Grant; but if such is their account of events, which happened about a century ago, we must decline trusting them at the distance of 1600 years.

curred in scripture. But he doubtless found a substitute in the exercise of his own ingenuity, in discovering the plagiarisms of Macpherson, and tracing them to the fountain-head. Be his motives or amusement what they may, Mr Laing has hunted every simile or marked expression of Macpherson, with the staunchness of a blood-hound.

————— ‘ On he fares,
As when a gryphon through the wilderness,
With winged course, o’er hill or moory dale,
Pursues the Arimaspean. ’——

The images of Macpherson, Mr Laing chiefly refers to Homer, Virgil, and their two translators; Milton, Thomson, Young, Gray, Mason, Home, and the English Bible. We present the reader with some specimens of the extent and acuteness of Mr Laing’s critical researches.

‘ But sit thou on the heath, O bard, and let us hear thy voice. It is pleasant as the gale of spring, that sighs on the hunter’s ear; when he awakens from dreams of joy, and has heard the music of the spirits of the hill!’ Laing’s Ossian, vol. I. p. 176, 177.

Upon this passage, Mr Laing makes the following remarks.

‘ Let us hear thy voice. *It is pleasant as the gale of spring, that sighs on the hunter’s ear.*’ Why compared with the gale of spring, when the hunter has heard the music of the spirits of the hill; instead of being directly compared with the music itself which the hunter had heard? The music might resemble the voice of Carril; but the gale of spring could hardly be pleasant on awaking from dreams of joy. The explanation of the incongruity is thus, that the whole simile is a concealed and happy imitation of the most select passages, respecting music, in Shakespear and Milton.

“ It is *pleasant as the gale of spring, that sighs on the hunter’s ear,* when he *awakens from dreams of joy.*” *Twelfth Night*, A. i. S. 1.

‘ O, it came o’er my ear like the *sweet south,*
That breathes upon a bank of violets,
Stealing and giving odours.’

Merchant of Venice, A. iii. S. 2.

‘ Such it is,
As are those *dulcet* sounds at break of day,
That *creep* into the *dreaming* bride-groom’s ear,
And *summon* him to marriage.’

“ And has *heard the music of the spirits of the hill.*” *Par. Lost*, v. 544.

‘ Thy words
Attentive, and with more delighted ear,
Divine instructor, I have heard, than when
Cherubic songs by night from neighbouring hills
Æreal music send.’

‘ And

‘ And from the combination of these passages, the voice of Carril is compared, not directly to the music of spirits, but to the gale of spring; that *breathes*, or *sighs* upon the hunter’s ear, when he awakens with dulcet sounds, like the *dreaming* bridegroom, from *dreams* of joy, and has heard the *aërial music* of the spirit of the hills.’ *Supra*, i.

Again, Vol. i. p. 101, 102.*

‘ *Fingal, tall in his ship, stretched his bright lance before him.*] *Æn.* x. 261.

‘ *Stans celsa in puppi : clypeum cum deinde sinistra
Extulit ardentem.*’

“ *Terrible was the gleam of his steel: it was like the green meteor of death, setting on the heath of Malmor, when the traveller is alone, and the broad moon is darkened in heaven.*” *Id.*

‘ *Ardet apex capiti, cristique a vertice flamma
Funditur, et vastus unbo vomit aureus ignis :
Non focus, ac liquida si quando nocte comata
Sanguinei lugubri rubent, aut Sirius ardor :
Ille sitim morbosque ferens mortalibus ægris
Nascentur, et læva contristat lumine calum.*’

The following striking resemblances are also pointed out.

‘ *Like the darkened moon, when she moves a dim circle through heaven, and dreadful change is expelled by morn.*] *MILTON, Par. Lost. i.* 596.

‘ *Or from behind the moon,*

In dim eclipse, disastrous twilight sheds

On half the nations, and with fear of change

Perplexes monarchs ; Dark’nd so, yet shone, &c.

‘ But the dreadful change expected by men was suppressed in the first edition, to conceal the imitation of Milton’s *dim eclipse*, “the *dim circle* of the *darkened moon*.” *Laing’s Ossian*, vol. i. p. 75, 76.

‘ *On the rising side of Crimla stood Erin’s fire sad fons, like a grove through which the flame has rushed, &c.*] *Disturb, withered, dark they stand, &c.* as restored in the edition of 1773 : From *Milton, Par. Lost. i.* 611.

‘ *Yet faithful how they stood ;*

Their glory withered, as when heaven’s fire

Hath leached the forest oaks, or mountain pines,

With sing’d top their stately growth, though bare,

Stands on the blasted heath.’ *Laing’s Ossian*, vol. i. p. 76.

These examples are taken at random ; but the plagiarism is sufficiently obvious, particularly in the two last instances. Mr Laing adds the following general remarks.

‘ The imitations, when pointed out, are so gross and obvious, that we are only surprised how they could have imposed upon the world so long. The secret consisted in the measured prose which the translator adopted, and brought to its perfection, and from the novelty of which, the public was unable to recognize its own poetry when clothed in prose sublime, and transformed into bombast. His first heroic poems, the *Hunter* and the *Highlander*, written while he “ served his apprenticeship,

ship, in secret, to the muses," are almost professed imitations. But when he undertook to produce an epic poem from the original Earse, it was necessary to proceed with the rapidity of translation; to resort to other poets for images; to avoid every allusion to the arts and manners of more refined society; and above all to disguise his imitations, and to conceal the real sources from which his poetry was derived. Similes from beasts of prey were easily avoided, as the common-places of heroic poetry; and modern criticism, or the study of Scripture, had taught him that abstract ideas were little known to the earliest writers. Yet in rendering his expressions particular, as in Homer, or in giving his ideas a local relation, as in Scripture, the false refinement of modern imagery prevails throughout: the gale of spring *sighs* like a zephyr on the hunter's ear, and Lochlin's blustering wind *speaks* aloft in all the shrouds. It is observable that the similes in Fingal, with the exception of the two fawns, the swan, and the whale, from Milton, are almost all derived from inanimate objects,—the storms, torrents, waves, vapours, and flames, for which the Iliad was ransacked; nor, till these were exhausted, did the author venture to introduce either the fallen oak or the eagle, which recur so frequently in the subsequent poems. The expedition with which he afterwards translated the Iliad, in three months, could have proceeded only from an early and familiar acquaintance with Homer; but the similes, and other imitations in Ossian, are drawn from such various sources, and are so redundant, that the original passages must have been previously treasured up in a common-place book, instead of being supplied by the author's memory as his occasions required. ' Laing's Ossian, vol. I. p. 207. 208.

While we give Mr Laing credit for acuteness in every instance, and accuracy in most, we must remark that his ingenuity has occasionally led him to trace resemblances altogether remote, and even fanciful; an error perhaps as incidental to this species of criticism, as to the derivations of etymology. It is our duty to point out one or two instances in which we think Mr Laing has been misled by his own ingenuity.

' *When mariners on shores unknown, are trembling at veering winds.*] An alteration of Milton, not inserted in the first editions. *Par. Lost*, iv. 558.

' And shews the mariner,

From what point of his compass to *beware*

Impetuous winds. ' Laing's Ossian, Vol. I. p. 67.

In this instance, we cannot see any foundation for the charge of plagiarism. There is a *mariner* and *winds* in both passages; but surely Milton having portrayed his sailor as watching the impetuous winds, is quite consistent with another poet, who never heard of the *Paradise Lost*, having described the natural anxiety of a seaman on a lee shore; a figure, perhaps, the most obvious which can occur to any one at all acquainted with navigation. In another instance, the sons of Lochlin are said to ' rise, rustling like a flock of sea-fowl, when the waves expel them from the

the shore.' This simile Mr Laing traces to Virgil :

' *Aut ad terram gurgite ab alto*

Quam multæ glomerantur aves '—

' Or fowls, by winter forced, forsake the floods. '

The sea-fowl are *fera nature*, and their use in poetry as free and as obvious to the Celtic poet as to Virgil. Indeed, we find the expression in Kennedy's version of the ballad of Magnus ; ' There men followed along the hill, to conquest or death, like a flight of sea-fowl. ' The resemblance of a tumultuary tribe to a flock of sea-mews is likely to occur to every one of the least imagination. In like manner, a Gaelic poet might have told how ' we fate and heard the sprightly harp at Lubar's gentle stream, ' although he had never heard of the children of Zion weeping by Babel's stream, and hanging their harp on the willows. A ghost travelling in a whirlwind, is said to be copied from Macpherson's own poem of the Highlander. But, that fairies and supernatural beings do so travel, is an ancient Celtic belief, found in Ireland as well as in the Highlands. (See Appendix to Castle Rackrent.) We could point out many other instances in which Mr Laing has rather overshot his purpose, in imputing as plagiarism to Macpherson what is owing to the natural coincidence of sentiment common to mankind all over the world. Were it our object to deter any youth from poetical attempts, (and, Heaven knows, there are few we would encourage in them), perhaps a more disheartening work could hardly be put in their hands than Laing's edition of Ossian's Poems. The young poet would learn from the perusal, that it is not sufficient that his ideas should be original in themselves, and even that none of the ancients (as the Frenchman heavily complained) should have stolen his fine thoughts, since he would find himself excluded and debarred from touching upon any topic which had been already treated, how differently soever, by any of his predecessors. Nay, by the spirit of some of Mr Laing's extreme cases, we should think it very possible to convict Chaucer of pilfering from Homer, or Hafiz of imitating Horace and Tibullus. It is easy to vary description ; but sentiment and passion must always be uniform. Or, in the words of Dryden,

' *Shows may be found that never yet were seen ;*

'Tis hard to find such wit as ne'er has been. '

From the examples which we have quoted, the reader will see it is by no means our purpose to extend this censure to Mr Laing's critical labours in general. He has detected many gross plagiarisms in the very strictest sense of the word, besides a variety of cases of coincidence and resemblance, so striking as to shew, that if the author did not recollect or intentionally copy the authors the critic has cited, his mind was so fully imbued with their spirit, that

that even his own thoughts and expressions assumed the shape of theirs. Enough has been traced to this purpose, even were other proof wanting, to establish in us the irresistible conviction, that the writer of Ossian's poems was habitually familiar with modern poetry. This conclusion we do not draw, so much from the direct depredations on the ancients, (for with these Macpherson might have thought it necessary to adorn the simplicity of his original), as from the whole turn of thought, style, and expression, which, if admitted to be modern, leaves nothing behind it that is worth vindicating as original. The style in which Mr Laing has conveyed his criticisms, is always concise and pointed. His expressions are occasionally a little peremptory, and sometimes tinged with more acidity than the subject seems to us fully to warrant. The leading features of his speculations are, more ingenuity than fancy, more severity than indulgence, and a hearty zeal for his cause, which occasionally leads him to lay equal weight upon very unequal arguments.

Mr Laing has published, with the poems of Ossian, several pieces of English poetry by Mr Macpherson. Some of these, particularly two, called *Death* and the *Hunter*, are from a manuscript in possession of the Reverend Mr Anderson of Kingussie, by whom, with commendable liberality, they were communicated to Mr Laing. The first is a string of verses, as dark and lamentable as the subject, in which there is little meaning, and much bombast. It must have been written in early youth, and shews Macpherson to have been no stranger to the florid effusions of Harvey, whose measured prose he afterwards deemed the fittest medium for the factitious version of Ossian. The *Hunter* is the rude sketch of a poem which he afterwards published under the title of the *Highlander*. The story of this last piece is sufficiently simple. An unknown youth arrives at the Scottish camp, when the Danes have made good a descent upon the coast. It will be readily anticipated that he becomes the principal hero in the ensuing battle; is discovered to be the lawful heir of the Scottish crown; marries a beautiful princess, and reigns in peace and glory. The language of this common-place tale is full of those descriptions of natural scenery which were impressed on Macpherson's mind by his residence in a romantic and mountainous country, and which few poets have either conceived so warmly, or painted so well. As to the rest, the versification is very indifferent, and the language always inflated. The same talent for describing nature may be discovered in another of Macpherson's early poems, entitled the *Cave*, which we copy at length as a favourable specimen of his talents for English poetry, and an instance how early he indulged the Ossianic vein of sentimental and natural painting.

' The wind is up, the field is bare ;
 Some hermit lead me to his cell,
 Where Contemplation, lonely fair,
 With blessed Content has chofe to dwell.

Behold ! it opens to my fight,
 Dark in the rock ; beside the flood ;
 Dry fern around obstructs the light ;
 The winds above it move the wood.

Reflected in the lake I fee
 The downward mountains and the skies,
 The flying bird, the waving tree,
 The goats that on the hills arife.

The grey-cloked herd drives on the cow ;
 The slow-paced fowler w lks the heath ;
 A freckled pointer scours the brow ;
 A mufing shepherd ftands beneath.

Curve o'er the ruin of an oak,
 The woodman lifts his axe on high,
 The hills re-echo to the ftroke ;
 I fee, I fee the shivers fly.

Some rural maid, with apron full,
 Brings fuel to the homely flame ;
 I fee the fmoky columns roll,
 And through the chinky hut the beam.

Befide a ftone o'ergrown with mofs,
 Two well-met hunters talk at eafe ;
 Three panting dogs befide repose ;
 One bleeding deer is ftretched on grafs.

A lake, at diftance, fpreads to fight,
 Skirted with fhady forefts round,
 In midft an ifland's rocky height
 Sultains a ruin once renowned.

One tree bends o'er the naked walls,
 Two broad winged eagles hover nigh,
 By intervals a fragment falls,
 As blows the blaft along the fky.

Two rough-spun hinds the pinnace guide,
 With lab'ring oars, along the flood ;
 An angler, bending o'er the tide,
 Hangs from the boat th' infidious wood.

Befide the flood, beneath the rocks,
 On graffy bank two lovers lean ;
 Bend on each other amorous looks,
 And feem to laugh and kifs between.

The wind is rustling in the oak ;
 They seem to hear the tread of feet ;
 They start, they rise, look round the rock ;
 Again they smile, again they meet.

But see ! the grey mist from the lake
 Ascends upon the shady hills ;
 Dark storms the murmuring forests shake,
 Rain beats, — resound a hundred rills.

To Damon's homely hut I fly ;
 I see it smoking o'er the plain ;
 When storms are past, — and fair the sky,
 I'll often seek my cave again.' Laing's Ossian, II. 613.

From these and other juvenile poems of Macpherson, Mr Laing has not failed to derive considerable aid, by comparing the ideas and expressions contained in them with many which occur in Ossian's Poems.

We hasten to conclude an article, already too long, with some account of the impression left on us by these rival publications. From the Report of the Committee, we learn there are many Gaelic poems in their possession, collected during their fruitless attempt to recover the originals of Ossian. We sincerely hope they will be given to the public, with a literal and careful translation, executed under the superintendence of the gentlemen who have interested themselves in the cause of the Celtic muse. Such a collection, whose authenticity will be ascertained by the names before it, must probably contain much that is interesting as poetry, certainly many curious circumstances of manners, and perhaps even of history. Many great chieftains retained their bards till within half a century. Why should not their verses be collected where judged worthy of preservation ? Many poems are announced as contained in MSS. recovered by the Highland Society. Why should not these, whose authenticity is established by written evidence, be given to the public ? We hope the Committee will prosecute their labours, and extend them on a wider basis. Why should the whole fame of Highland poetry be made to depend upon Ossian alone, whom, after all, the Highlanders claim as a countryman on very obscure and dubious grounds ? * We have
 no

* We intended to have investigated this question more fully ; but we have only time to make these general remarks. The Irish traditions respecting the Fions are uniform and consistent ; those in the Highlands, that is, such as really do float there, are much more vague and inconsistent with each other. No Highlander ever heard of *Selma* except through Macpherson ; but every old Irishman pointed out Almhuin

no doubt that a faithful translation would be acceptable to the literary world, which of late years have received, very favourably, attempts to preserve ancient poetry of far inferior interest and merit. Let us therefore hear no more of Macpherson, whose last preface sufficiently intimates his own claim to the renown which had attended his supposed original. Dismissing this question entirely, we would earnestly recommend a general selection of Gaelic poetry, upon the plan of Miss Brookes, excepting only that the translations should be made in prose; a condition, however, from which we will willingly release the Chairman of the Committee, should he be pleased to gratify the public by undertaking the task.

Of Mr Laing's criticisms, we take the liberty to say, that the impression they have made on us has been involuntary, and that he has, as it were, carried his point by storm. We were never believers in Ossian to the extravagant extent demanded by Macpherson; yet we long cherished the pleasing belief that much of his translation, perhaps more than one half, was authorised by an authentic original. Nor did we think that we were *very* credulous, since thus far we had the countenance of Mr Pinkerton himself. But the result of the Committee's inquiries, by which, though much ancient poetry has been collected, not one poem
of

huin (Allen in Leinster) as the abode of Fingal. Many of the Irish poems, such as Magnus, Cath-Gabhra, &c. in which the claim of Green Erin to the Fions is maintained, are current in the Highlands; but in no such poem, in manuscript, or traditionary, is there a hint given of their being Scottishmen. Irish history mentions them explicitly, and narrates their rise and fall: in Scottish history they were never heard of, save where slightly mentioned as subjects of legendary lore by Boece; for even that fabler never dreamed of a pretension which would have jammed Fingal, Comhal, Trathal, Trenmor, and heaven knows how many car-borne chiefs besides, into the middle of his royal genealogy. Gawain Douglas calls them Irish gods. Above all, Macpherson was ignorant of the real history of the colony of the Dalriads, or Irish Scots, who possessed themselves of a part of Argyleshire in the middle of the third century; an indubitable fact, inconsistent with his whole system. But it is highly probable that the Fions occasionally visited Scotland, and engaged in her wars. Hence, perhaps, their general renown through the Highlands, which we are still more inclined to ascribe to the prevalence of the tales concerning them. Mountains and streams are frequently named after the heroes of romance in a neighbouring country, whose fame has extended to that in which they are situated. We have, in Scotland, as many places called after the British Arthur, as the Irish Fingal has attached his name to in the West Highlands.

of the celebrated Ossian has been recovered—the avowal of Macpherfon, when he drops Ossian and talks of himself, his own genius, and his own improvements—and finally, this elaborate work, in which more than a thousand resemblances, coincidences, and plagiarisms are pointed out, compels us to allow, that the poems of Ossian, as translated by Macpherfon, bear the same relation to the original legends, that the Tragedy of Douglas does to the Ballad of Gil Morris. But, while we are compelled to renounce the pleasing idea, ‘that Fingal lived, and that Ossian sung,’ our national vanity may be equally flattered by the fact, that a remote, and almost a barbarous corner of Scotland, produced, in the 18th century, a bard, capable not only of making an enthusiastic impression on every mind susceptible of poetical beauty, but of giving a new tone to poetry throughout all Europe.

ART. XVI. *A Dissertation on the best Means of civilizing the Subjects of the British Empire in India, and of Diffusing the Light of the Christian Religion throughout the Eastern World; which obtained Mr Buchanan's prize.* By the Rev. William Cockburn, A. M. Fellow of St John's College, and Christian Advocate in the University of Cambridge. 4to. pp. 48. Deighton, Cambridge. Rivington and Hatchard, London. 1805.

WHILE we admire the truly oriental liberality of Mr Buchanan in exciting the industry and emulation of our Universities, we cannot help doubting, whether the subject proposed by him for the English essay was very judiciously chosen. The discovery of the means by which the civilization of a people may be advanced, is the great problem, which it is the business of all legislation practically to solve, and a problem which has staggered the mightiest masters of political wisdom. The difficulty, however, of solving it, is considerably increased in a case like the present. India is a country little known to Englishmen in general, and, least of all, we should think, to Englishmen removed from the bustle of public life, and cloistered in the abodes of science and literature. Even the little which such persons may be presumed to know of that remote dependency of our empire, cannot be of a practicable or a *producible* kind. The gleanings of information which they may have collected respecting it, are reposed in their minds, rather like exotic rarities in a museum, than as merchantable wares intended for use and circulation. In addition to all this, it may naturally be supposed, that

that the candidates for such prizes as those of Mr Buchanan, will usually belong to the *juvenile* class of academics, a description of characters not the most likely to have qualified their literary or philosophical studies with an infusion of Indian politics.

On a dissertation proceeding from such a quarter, upon such a subject, it is pretty evident that our demands should be moderate; nor must we be disconcerted at discovering it to be tolerably fertile of errors, and perhaps of contradictions. Even the narrative or historic sketches which it contains, are not likely to be accurate, but will probably exhibit all those defects which usually disfigure the hasty designs of an unpractised pencil. At the best, it may be presumed, that the facts detailed will seldom be viewed in their just light, or turned to the greatest account. Instead of being scientifically classified, and (if we may so speak) accurately *sized*, we may expect to find them tossed together with little judgment, and with little reference to their mutual bearings, or their comparative importance. Still less, perhaps, is it to be expected from the reasonings than from the facts. To say the least, we can look for nothing in this department that is very profound or systematic, nor please ourselves with the prospect of any masterly elucidation of the principles by which the policy of Great Britain, with respect to her Oriental dominions, should be regulated. On the contrary, we must be prepared to meet with opinions hastily, and, perhaps, imperfectly drawn from casual sources; opinions of various authority, not very patient of coalition, and rather shaken together by force than combining spontaneously by virtue of their respective affinities.

All this, we say, is to be expected in an academical disquisition on the subject proposed by Mr Buchanan; and if therefore we add, that all this, or something very like it, is to be found in the Essay before us, we hope we shall not be accused of disrespect, either to its author, or to that learned body who, by publishing it without correction, have acquiesced in its errors. In truth, we are willing to censure the subject much more than either the essayist or the judges. We will not, indeed, say that, considered either as an exhibition of general talent, or as a mere piece of writing, this production is quite worthy of the celebrated University whose approbation it has received. But we wish to speak tenderly of it in these respects, and shall therefore confine our strictures almost entirely to such of its defects as may be ascribed to misinformation on points immediately connected with its main subject. Of these we shall now produce a few samples. Should we ourselves, in the course of our examen, be any where chargeable with mistakes similar to those that we shall expose, (which

(which, however, we trust, will not be the case), this will only be a fresh proof of the difficulty of the questions at issue; and we must cheer ourselves, like the poet, with the thought of having a companion in error—*quales ego vel Cluvienus*.

Our learned essayist begins his dissertation with some general reasonings, of which (as far as in us lies) our readers shall remain for ever ignorant. He then proceeds to remark, that nothing can be more injurious to the peace, and therefore to the increasing civilization of India, than the growth of *small* states on that continent; and on this subject he thus admonishes our 'Indian governors.'

'Whenever the termination of war, or other accidents, leave them at liberty to make new arrangements with respect to territory, let them avoid, if they wish for peace and increasing civilization, the formation of small states, even though those states be in some measure dependent on themselves. With this impression, I cannot sufficiently applaud the use made by Lord Wellesley, of our complete successes in the Mysore in the year 1799.'

'The territory of Tippoo was ours by right of conquest. A part which added much to our security, but little otherwise to our aggrandizement, was retained; whilst the rest of the spoil was offered to the Nizam and the Poonah Mahrattas, the two states already the most powerful in the peninsula of India.' p. 10.

We cannot help admiring, here, the convenient ambiguity of the word 'offered;' and at the same time cautioning the gentle reader against the supposition, that the land which was *offered* on this occasion, was necessarily *given*. The fact is, that the whole of the above extract comes true (as the saying is) *by the rule of contraries*. At the period in question, *no land at all* was given to the Mahrattas; some was indeed *offered*, which Mr Cockburn might think *enough*, but which they thought *too little*; and the matter ended in their having *none*. The Nizam fared better for a time; he actually received some territory, but was soon persuaded to resign it to us, in lieu of a pecuniary subsidy which he had formerly stipulated to pay for the maintenance of a body of British soldiers at his capital. Finally, a small tract of country was erected into a principality under the Rajah of Mysore.

Thus, then, the 'use made of our complete successes in 1799,' and which this author 'cannot sufficiently applaud,' has been, that the Nizam and the Mahrattas, those 'two powerful states,' are left without *a single rood* of the conquered territory between them; and that, in the principality of Mysore, we have *actually* set up one of those 'small states,' the formation of which our Indian governors are to 'avoid, if they wish for peace and increasing civilization.'

Next,

Next, our author strongly recommends to his countrymen in the East, the policy of assisting, as far as possible, the established governments in their neighbourhood against usurpers. Usurpers, he says truly, are ever restless.

'The old hereditary monarch, sitting securely on his father's throne; and enjoying his high dignity without fear of any rival, wishes not to risk a situation so preeminent, by engaging in doubtful wars and dangerous attacks upon the similar establishments of his neighbours.

'Upon principles, then, of the soundest political wisdom did Marquis Wellesley enter into the late contest. He protected the old Nizam, and strengthened his power against the too potent union of the Mahrattas; facilitating, at the same time, the accession of his son to an hereditary throne: while our well-disciplined troops, acting under the sanction of the defensive treaty of Bassein, entered Poonah, not as enemies or plunderers, but as protectors of the inhabitants, and as allies of the degraded Peishwa, whose authority had first been usurped by the ambitious Scindia, and afterwards completely destroyed by the adventurous and daring Holkar. In the same spirit of excellent policy, and with the same success and glory, did General Lake, on the northern quarter of Hindostan, rescue the venerable Emperor of Delhi from the tyranny of the same Scindia, and the more dangerous influence of that aspiring and subtle Frenchman, M. Perron.' p. 10, 11.

It is really to be hoped, that the character of Lord Wellesley for 'sound political wisdom,' and that of Lord Lake for 'excellent policy,' do not altogether depend on the accuracy or inaccuracy of this statement; for, unless we are much mistaken, these four sentences contain at least four considerable errors. *First*, Lord Wellesley never dreamed of 'entering into the late contest,' for the purpose of protecting the old Nizam against the Mahrattas. In truth, the Mahrattas, according to the Noble Lord's own representation, were actuated solely by a spirit of hostility towards the British government; they even invited the Nizam to a close alliance with themselves; and at last menaced him with an attack, only because they could not detach him from our friendship. The Nizam, therefore, was no more the cause of the war than the Dey of Algiers, nor was he indebted to the enmity of the Mahrattas for our 'protection,' but to our protection for the enmity of the Mahrattas. *Secondly*, 'The same remark applies to the succession of the Nizam's son, which there would have been no occasion to 'facilitate,' had not the war already broken out; because no Mahratta would have attempted to disturb it. *Thirdly*, The treaty of Bassein can no more be called a *defensive* treaty, than a treaty between the Emperor of Russia and Louis the XVIII. could be called defensive, in which his Imperial Majesty should engage to restore the King of France to the throne of his fathers. *Fourthly*, Lord Lake never thought of restoring 'the venerable

Emperor of Delhi' to 'a hereditary throne.' Every one knows that this fallen potentate has been restored only to personal liberty, and to a few trappings of external splendour; and this, if we do not deceive ourselves, is expressly stated by Lord Wellesley in the papers laid before the House of Commons. In this situation, it must be owned that the 'wars' which this 'old hereditary monarch' may feel disposed to wage with his neighbours, will probably be somewhat more than 'doubtful;' and the 'attacks' he may make upon them will be singularly 'dangerous' to himself, as he comprises in his own person both the general and the army.

Our author comments at some length on the political views of the native powers of Hindostan, and details the principles by which our conduct with respect to them should be guided. We are now concerned, not with his reasonings, but with his facts; and we must say that this writer, who could perhaps draw a map of Alexander's march, or of the retreat of the ten thousand, on a scale of an inch to a minute, might easily be outdone in his sketch of the political geography of India, by many a strolling *Fakier* on the banks of the Ganges. This is a heavy charge; and therefore 'to the proof!'

'By supporting him (the Peishwa), and rendering the Musnud hereditary in the family of the present possessor, another object will be attained; the danger of the whole Mahratta state falling under the government of one prince will be prevented. At present, the Rajah of Berar has some claim, from family descent, to the throne of Sattarah: the establishment of this claim might be fatal to our existence in India, as it would render him more than a match for us and all our allies. It is therefore evidently important that Poonah and Berar should continue in separate hands.' p. 11.

This is inaccurate; for, *first*, it is not true that, if Poonah and Berar were to be governed by the same person, this person would be the governor of all the Mahratta states. At the most, he would govern only two parts out of four. Where is Scindia? Where is Holkar? Mr Cockburn indeed asserts, that these two chiefs 'have little individual power.' We on the contrary assert, that, though they yield the titular *precedency* to the Peishwa, they would disdain to treat with him on any other than the most independent grounds: and to prove that their individual power is of the first order among the Mahratta states, we need only refer to the India gazettes for the last two years. In effect, their dominions are no more governed by the Peishwa, than Prussia is governed by the Emperor of Germany.

Still farther—The Rajah of Berar, to do him justice, has hitherto laid no claim to the throne of Sattarah. The case we believe

lieve to be as follows. The Rajah of Sattarah is the nominal head of the Mahrattas; his power, however, is delegated (as our author expresses it) to the Peishwa as his prime minister; but, in fact, though apparently delegated, it is virtually *extorted*. In the Peishwa's family, this power is now hereditary; and the Rajah of Berar lays claim, not to the principedom of Sattarah, but to the office of Peishwa; a claim this, not of law, but of equity, and founded on his relationship to the titular prince of Sattarah.

'Its (India's) immense territories are divided among several mighty states. The two principal Rajahs of the Mahrattas, the Nizam, the British government, the Nabobs of the Carnatic, and of Oude, and the Seiks, possess almost the whole of this peninsulated country.' p. 12.

An Orientalist, who surveys this picture, will be not a little appalled by the 'gracious figures' of those two departed worthies, the Nabobs of the Carnatic, and of Oude. Seriously, we can assure our author that these two 'mighty states' are *both nonentities*. The Nabob of the Carnatic is now a mere stipendiary of the British Government, without the shadow of territorial power; and his Highness of Oude is hardly mightier, having been melted down nearly to the condition of a mere Zemindar. We need hardly add, that the ruin of these principalities has been the aggrandisement of the British dominions. So much have things altered since Guthrie's Grammar was first published! Again—

'All the various invaders (of India) have entered through the Panjab: and even now, on the north of the Attuck, is a powerful kingdom, governed by Timur, the warlike son of the great Ahmed, the victorious hero of Paniput: upon him they (our governors) should keep a jealous eye.' p. 13.

There is only one objection to this piece of advice; and that is, that this powerful prince, 'the warlike son of the great Ahmed, the victorious hero of Paniput,' *died about twenty years ago!* Not only has this chief departed this life, and is therefore never again likely, we should hope, to 'push us from our stools,' but his son Zemaun Shah, who succeeded him, is also dead; and late reports state that his powerful kingdom (once it *was* powerful) is become a prey to intestine contests, the object, not of jealousy, but of compassion.

'While we continue our alliances with the sovereigns of Poonah and of Hyderabad in the true spirit of peace, and while the Seiks and the Great Mogul have an interest in being our friends, the French can have no hopes of exciting even a disturbance in Hindostan.' p. 13. 14.

'Look where it comes again!' But of the Great Mogul and his shadowy importance, we have already spoken. The reader

will therefore readily admit that this monarch has indeed a very great 'interest in being our friend,' but, at the same time, that we need not greatly concern ourselves whether he is our friend or our enemy.

There are many minor objections to the fidelity of Mr Cockburn's *politico geographical* sketch; but the discovery of them may be left to the reader. For these, as well as for the faults which we have mentioned we again say, that, though some blame is doubtless imputable to the author, and perhaps rather more to the examiners, yet both are less guilty than the subject. Had Mr Buchanan proposed to the University some inquiry connected with the notices that the classics have left us of ancient India, Mr Cockburn and his judges would probably have felt themselves much more at home, and we are convinced they would have acquitted themselves better. Indeed, it is not easy to convey to a reader unacquainted with Indian politics, and subdued by the plausible sound of hard names, the effect which is produced on the mind of a tolerably competent judge, by such mistakes as an English academic is likely to commit, when treating a subject so foreign to all his habits of thinking and of reading, as that of the present dissertation. To comfort us with the prospect that the Nabobs of the Carnatic and of Oude will be our friends, to advise an alliance with the Great Mogul, and to caution us against the son of 'the victorious hero of Paniput,' sounds much the same as if a memorial addressed to the present Emperor of all the Russias were to run thus: 'Sire, I trust you will ever find those mighty monarchs, the Kings of Poland and of Norway, your friends; I also strongly recommend to you a close intimacy with that powerful prince the Cardinal York; but, by all means, beware of that gunpowder neighbour of yours, Charles the Twelfth, the collateral descendant of the great Gustavus, the victorious hero of Leipzig!'

We shall now pass to the thoughts on the line of Indian policy which Mr Cockburn recommends to this country; and the sum of them is, that the expedience of this policy appears more than questionable. He enjoins a perpetual and restless interference in the concerns of all our neighbours in Hindostan, without recollecting that such a system of interference must inevitably lead us to a system of encroachment and conquest. He talks of justice in general terms; but the only test by which he tries his plans in detail, is the prospect of advantage to this country. Supposing it to be true (which it is not) that the Mahratta states, if consolidated under one head, would overmatch 'us and all our allies,' why must we therefore be always intriguing and sowing jealousies among those states, to prevent such a consolidation?

Is it not a previous question, how far a particular prince has a *just right* to the empire of the Mahrattas, before we resist his claims merely from a regard to our own interest?

We are aware how easy and how common it is to condemn our system of foreign policy in India, and to talk in vague generalities of Roman ambition and Roman policy; but is the case of the Romans here inapplicable, because it occurs to every body? To interfere actively in the domestic affairs of all other states; to regulate the succession of their governors; to take part in every quarrel; to claim the lands of one party for assisting him, and seize the lands of the other after beating him; to get allies by force, and take care that nobody shall rob them but ourselves; to quarter troops upon our neighbours, and pay them with our neighbour's goods;—this it is that we call *Roman* policy: whether it be *English* policy in any part of the globe, let the world judge. Rome held the stakes to every game of war that was played throughout the hemisphere; and the suspicious circumstance is, that, whoever lost or won, she never failed to gain something. Is there no similar ground of suspicion in the East? While Tip-poo is despoiled for befriending the French, and the Nizam is despoiled for befriending the English; while Holkar is despoiled for beating the Peishwa, and the Peishwa is despoiled for being beaten by Holkar, who is it that is enriched by befriending and beating them all?

In one respect, however, we trust that the parallel to which we have alluded, will never be completely filled up;—we trust that those of our countrymen who may have been seduced into Roman schemes of conquest abroad, will never be *honoured with a triumph* at home, nor permitted to suspend, in temples of British structure, those inauspicious trophies which can be regarded only as the spoils of British reputation.

We are aware of the danger of French influence in India. But let us here discriminate a little. Do we not know something of M. Perron, and of his predecessor in the service of Scindia? Do we not know that they were mere soldiers of fortune, and intent chiefly on emolument? Do we not know that they have constantly remitted their gains to Europe through English channels, thus giving us an indirect pledge of their good conduct? Do we not know, finally, that, in point of fact, after the commencement of hostilities between Scindia and the English, M. Perron seized the first decent opportunity of retiring from the service of his Mahratta employers, of placing himself under our protection, and of repairing to Calcutta, whither his fortunes had found their way before him? In whatever degree M. Perron might be connected with the ruling powers of France, that connexion was only sub-

sequent to his acquisition of influence in the service of the Mah-rattas. From this, and from several other causes, particularly from the pecuniary holds which bound him to the government of Calcutta, his connexion with France might have been presumed to be weak and precarious; and the readiness with which it has been dissolved, demonstrates that such a presumption would have been well-founded. French influence, we again admit, is a real cause of alarm; but then, like all other real causes of alarm, it may easily be turned into a bugbear. Let us not be always running as if 'the Pope and the Pretender' were at our heels, or trying out what the Great Turk is come as far as White-chapel!"

In the fourteenth page of this dissertation, we were surprised to find a note, in which Mr Cockburn condemns the third article of the treaty of Bassein, and which we cannot quite reconcile with the text, nor indeed altogether with itself. We say this in wonder, not in censure; for we are too well pleased with some of the doctrines contained in this note, to treat it rudely; and we hesitate not to pronounce it worth many pages of the Dissertation.

Let us now direct our attention to this author's sentiments on the system of jurisprudence established in British India. Here, too, his information is not superlatively correct, as the reader will soon discover.

'Not venturing at first to alter the laws in their infant colonies, they (the first British settlers in India) endeavoured to bend themselves as much as possible to the purposes of justice. With this view the Nizamut Adawlut was established at Moorshedabad, and certain regulations introduced, to fix the principles of legal proceedings.' p. 16.

This is not true; for, *first*, so far from being established by the English, the Nizamut Adawlut was a native court; *secondly*, so far from being established by the English at Moorshedabad, it was transferred by the English from Moorshedabad to Calcutta. The history of this removal is, we believe, briefly as follows. The administration of criminal justice had been left in the hands of the Nabob of Bengal, as the wreck of his prerogative; and the Nizamut Adawlut (a title parallel in its meaning to the *King's Bench*) administered justice immediately under his eye. In process of time, however, the scandalous manner in which the judicial power was abused by the Nabob's officers, forced the assumption of it by the British under Lord Cornwallis. It was accordingly transferred to the East India Company in the form of a delegation from the Nabob, and from that time the Nizamut Adawlut has sat in Calcutta.

'Acbar divided the empire (of Hindostan) into soubahs or provinces, and appointed soubahdars his viceroys, giving them absolute power in their governments, with a responsibility only to himself.... Rome,

on the contrary, in the time of her free government, though her Proconsuls were absolute in the provinces, made them accountable to her Senate (*vide* Cic. *ag. Verres*): and in like manner our Governor-general is absolute in India, but accountable to the Parliament of Britain, &c. &c.' p. 17.

This passage contrasts together the provincial systems of ancient Rome, of the Mogul Court, and of Great Britain, and completely misrepresents all the three. We will consider them in the order of chronology.

The short sentence about the *regime* of the Roman provinces, affords two instances of inadvertence, and one of mistatement. The case of Verres is quoted as proving that a Proconsul, though absolute in his province, was accountable to the Senate. Now, first, Verres was no *Proconsul*, but a *Prætor*; next, Verres, to whomever accountable, was neither impeached by the Senate, nor tried by the Senate, but impeached (if we may so speak) by the Sicilians, and tried by a select body of Judges, many of them indeed of Senatorian rank. These are, we grant, but slight errors; errors which a little inadvertence may commit, and which it requires but little reading to detect. We grant also that, in substance, the authority of a *Prætor* might be nearly the same with that of a *Proconsul*. But the third error is of more consequence. Though on a classical question we differ with trembling from the University of Cambridge, the ordeal of whose examination this essay has passed, yet we cannot help thinking that the provincial governors of Rome, by whatever name called, were *not* generally 'absolute.' We need go no farther than Adam's Roman Antiquities to learn that, in their judicial character, they were obliged to associate with themselves a number of *Judices*; and, if Mr Cockburn is content to join issue on the case of the *Proconsul* Verres, we know that Cicero repeatedly reproves the *Quæstor* Cæcilius for not having availed himself of his official power to resist the exactions of that tyrant. Take one specimen: 'Eras enim tu quæstor; pecuniam publicam tu tractabas; ex quâ, etiam si cuperet prætor, tamen ne qua deductio fieret, magnâ ex parte tua potestas erat.'

With regard to the provincial institutions of the Moguls, Mr Cockburn gives us, at least, *one* mistatement. The Mahomedan viceroy was *not* absolute in his province. On the contrary, he possessed no power over the Dewan or minister of finance, who was responsible to the Emperor alone. A considerable jealousy often prevailed between the Soubahdar and the Dewan. On this subject we will present our readers with a curious anecdote, which, while it furnishes an instance of the jealousy to which we have alluded, strikingly exemplifies the vigilance and vigour which

distinguished, in its best days, the Mogul government. One of the sons of the renowned Aurengzebe was Soubahdar of Bengal, and mortally hated Jaffier Khan, who held the office of Dewan in the same province, and discharged the duties of that office with the most loyal fidelity. The hatred of the Prince at length became so violent, that he made an attempt to assassinate Jaffier Khan, in which however he was unsuccessful. Aurengzebe, who was minutely informed of every event that occurred in the provinces, instantly wrote to his son these striking words: 'If Jaffier Khan dies *even by a natural death*, I will make you accountable for it.'

We have seen that neither the provincial governors of Rome nor the Mahomedan viceroys were absolute: we have now to make the same assertion of our Governor-general in India. Not to mention the obvious circumstance, that the judicial power in that country does not flow from the Governor-general, it is only necessary to remind the reader that the government is not vested in the Governor alone, but in the *Governor and Council*. It is only on extraordinary emergencies, and with great formalities, that the Governor, interposing his single responsibility, can order any measure in opposition to the opinion of his Council; and, even in these cases, *the exception proves the rule*, the order always running in the name of the whole Government.

The golden canon which our author here delivers, is, that we ought to increase, as much as possible, the number and power of the *native* judges. He quotes 'an eminent writer' (so eminent, it seems, that his name is not to be lightly mentioned), who asserts, that the natives are entitled to the judicial power 'by the most solemn treaties,' and therefore pronounces that it should not be taken 'from their acknowledged chiefs.' All this we shall meet, by submitting to Mr Cockburn the four following questions.

Does he know *whom* he means to designate by the title of *native* judges? If he means them to be *Mahometan* judges, does he remember that these are the very men strongly charged with venality and corruption by an author whose opinion, we doubt not, he greatly respects? (Diff. p. 17.) If he understands them to be *Hindoos*, then what is become of those 'acknowledged chiefs,' from whom the English 'took the judicial power?' And, in fine, is it not true that the *Hindoos* are no less venal than the *Mahometans*?

Hitherto, as we have seen, our learned dissertator has spoken in a very complimentary style of our countrymen who have swayed the destinies of British India. He has declared himself to be mightily impressed 'with a conviction of the great political abilities

lities of those who regulate the affairs of India.' (p. 8.) He 'could not sufficiently applaud' the sound 'political wisdom' of Lord Wellesley, and the 'excellent policy' of Lord Lake, who seems to yield to brave *Leodamas alone*. He has told us, that great pains have been taken, of late years, to 'improve the laws and municipal regulations' of British India, and to 'place them on such a foundation as to afford the greatest protection to the persons and property of all classes of society' (p. 15.); that the first 'British settlers endeavoured to bend' the laws they found in India, 'as much as possible, to the purposes of justice' (p. 16.); and much more to the same effect. Finally, he has informed us, that, on the whole, 'the constitution of British India is not hostile to civilization.' (p. 17.) But now 'the moon changes;' and, through the rest of his composition, the author is not a little severe on the whole of our Indian system. A few extracts, taken in combination, will give a pretty exact view of his reformed doctrines on this subject.

'The more splendid, then, the Court of the Governor-general, and the larger his *expenditure*, the more will the manufactures of India flourish, and its civilization increase....Instead of increasing his salary, let the East India Company, in the most liberal manner, support an establishment the most splendid: let him live while in India with magnificence: instead of impoverishing, this will only enrich his empire.' (p. 18.)

'The nomination to places of great trust and importance in that country, is in the hands of Europeans: they bestow these lucrative situations upon their own relatives and friends, who go forth to the East with no other object than to enrich themselves by its plunder, and on their return to revel in its wealth: they consider India as a country in which they are only passengers, and with whose interest they are unconcerned. While the wealth and power of a country are placed exclusively in such hands, what hopes can be formed of its rising high in the scale of civilization?

'Every one knows that schools and colleges, large towns, public edifices, and good roads, add rapidly to civilization: but who will undertake such improvements in Hindostan? The power of that country is almost entirely employed in amassing wealth; and that wealth is uniformly expended in another quarter of the globe.' (p. 19.)

'Why are the British youth sent to the East Indies at so early an age? The Directors have already passed a law to prevent any from going out as *cadets* till they have arrived at the age of fifteen. Why do they stop here? Let them enact, that no European shall succeed to any situation of importance in India, who leaves this country before he has attained the age of twenty-one.' &c. &c. p. 38.

'The eager desire of wealth, the anxious hope of returning to Britain at an early age, and the sight of those who are already returned, prompt

prompt the thoughtless schoolboy to embark with alacrity for those golden realms.' p. 39.

'It would be invidious and unbecoming to point out the particular ill conduct of those who have filled important situations in British India. Their rapacity, their injustice, and their contempt of religion, are subjects of common notoriety.' &c. p. 37.

The courteous reader will bear us witness, that we attempted to moderate a little the feelings of delight with which this author, in his first pages, contemplated the policy of Great Britain in India; especially with respect to 'the ambitious Scindia,' and 'the daring Holkar.' Since now the fit is over, and since a writer, who before could see nothing 'in the constitution of British India,' 'hostile to civilization,' now asks, 'what hopes' there are, while its present constitution continues, 'of its rising high in the scale of civilization?'—Let us see whether we cannot apply a few weights to the opposite scale. The lassitude which succeeds a paroxysm, may be often removed by the timely application of a cordial.

And here let it be premised, that we have no intention of discussing the general merits of the peculiar system of Indian administration adopted by this country. That system, considered in itself, we shall neither praise nor dispraise; but we really cannot permit writers, necessarily ignorant and inexperienced, to dogmatize on these great questions. The battle will never be fairly fought until the lists be cleared of all intruders.

Our learned essayist has not always given us the means of ascertaining how much he knows on the subjects of which he writes. For instance, several acts of Parliament have been passed to regulate the administration of British India; yet, whether Mr Cockburn ever heard of these acts or not, he leaves us to conjecture; for he does not once mention them, while he evidently, though obliquely, blames the Legislature for *not* 'interfering' in the regulation of our Asiatic possessions. But as ignorance is better than perverseness, and as *reasoning wrong from right premises* is the worst possible symptom of a man's intellect, we readily believe that Mr Cockburn has never heard even the titles of these acts of Parliament. Happily, this conjecture is confirmed by the sentence in which he apprizes us, that 'the Directors have already passed a law to prevent any from going out as *cadets* till they have arrived at the age of fifteen;' mistaking an *act of Parliament* for a law passed by the Directors!

The Directors, however, have not only the credit of passing laws, but also of nominating their friends 'to places of great trust and importance' in India. But, with submission, this sort of patronage is not exercised by the Directors, but by the Governments

vernments of that country. No doubt the Directors, in concert with his Majesty's Ministers, nominate the Governors themselves; and these, as we have seen, they have sometimes chosen, very much to the satisfaction of Mr Cockburn. In the mean time, the appointment of civil officers is, for the most part, left to the Governor for the time being; to Lord Wellesley, whose wisdom this writer 'cannot sufficiently applaud;' or to Lord Cornwallis, whose solid abilities, and judicious administration, will command the applause of all posterity.

But who (says Mr Cockburn) will undertake such improvements, as making roads, or building cities and colleges in Hindostan? We really do not know who *will* undertake them, but we know who *has* undertaken them, and we know too who has written of them, and told us of the civilized 'city' of Calcutta, (Dissert. p. 27.) and the 'noble and judicious institution' of 'the college' at Fort-William. (p. 38.) With respect to good roads, it cannot be pretended that Bengal, in this article of luxury, vies with the regions of Europe, nor is it probable that she will ever do so, considering her great opportunities of water-carriage, and the devastations which her roads must sustain in the rainy season, when whole tracts of country are completely deluged. Yet she is by no means destitute of very tolerable roads; otherwise the Directors' friends, 'who go forth to the East with no other object than to enrich themselves by its plunder,' would find it a hard business to convey their booty to the port of embarkation.

We too lament, like our author, the 'rapacity,' the 'injustice,' and the 'contempt of religion,' but too visible, not in British India only, but throughout all countries. Alas! the world abounds with 'instances of successful vice, and opulent depravity.' But when these expressions are appropriated, by way of distinction, to our countrymen in the East, or to any body of men, it becomes us to receive them with caution, though they bear the *imprimatur* of a learned University. Let us then examine, whether, in his remarks on this topic, our author be quite consistent with himself.

The chief grievance is, that 'thoughtless schoolboys' go forth to plunder the East; that, eager to enrich themselves, they 'hasten their return to their native country;' and that thus 'the wealth of India is uniformly expended in another quarter of the globe.' Now schoolboys, we grant, are apt to be 'thoughtless' and romantic enough. We will allow, too, that schoolboys sent abroad will be more likely to run riot, and take liberties, both with themselves and with others, than schoolboys kept in England. More than this, we will admit, for a moment, that all the schoolboys

schoolboys sent out to India, embark with the deliberate purpose of accumulating wealth with the greatest rapacity, and yet of husbanding it with the greatest parsimony, that they may return, youthful and opulent, to their native land. And what then? Must they not be 'wondrous boys,' to keep this their resolution? Is it not a necessary consequence of their being young, thoughtless, and free, that much of their gains will be expended in the country where they were accumulated? Nay, is it too much to expect that such characters will occasionally deviate into generosity, at least, if not into justice? Will none of them find their account in giving encouragement to Asiatic industry and ingenuity? We own that the 'thoughtless boys' we have chanced to meet with in this country, (and there are too many of them in all countries, both at school and at college), have very seldom discovered such a steely and self-denying rapacity, as our author attributes to these young friends of the Directors.

But now, to all our concessions, let us add one more; let us suppose these wicked boys to be, in inclination, all that they are represented in this essay;—to be at once rapacious and penurious tyrants. Are there no laws to protect the natives? What is become of those 'municipal regulations,' framed 'in the true spirit of British freedom,' of which this author himself has spoken? Where are those unremitting efforts, on the part of the 'British settlers,' to effect all 'the purposes of justice,' and to 'protect the persons and property of all classes of society?'

To be serious—We are not panegyriizing our young countrymen in the East, but merely vindicating them from the hasty and ill-digested aspersions of our young countrymen at the University. Of the irregularities which deformed the earlier years of our sovereignty in India, we say nothing. Of the system of foreign politics, which has sometimes been adopted by our Indian governors, we have said enough. The question now is, Whether the internal administration of our Asiatic possessions, after all the reforms of Lord Cornwallis and others, be really so corrupt, profligate, grinding, and detestable, as it appears in the portrait given of it by the present writer. In justice to the exalted character just mentioned, as well as to the rest of our European brethren beside the Ganges, we declare our conviction, and we triumph in the contemplation, that the internal economy of our Asiatic dominions has been, of late years, wonderfully improved; that instances of rapacity are now extremely rare; and that, on the whole, the general administration of British India is as pure as that of any part of the British empire. Indeed, there is one presumptive proof of this amelioration, which is obvious to the plainest understanding; the actual term of residence of our countrymen

countrymen in the Indian service is known to be now seldom less than twenty years.

We have not room to notice particularly Mr Cockburn's doctrine, that expenditure is the great parent of industry, and that the luxury 'which is often faulty in the individual, becomes, under certain limits, the nurse of civilization.' The reader, who wishes to see the arguments in support of this doctrine, may consult the Fable of the Bees; or, if he has no inclination to search for them there, he will find them stated, and tolerably well refuted, in the Minute Philosopher. We shall only say, that this doctrine is to be considered, rather as a perversion of truth, than as radically erroneous, and that its fallacy cannot be better exposed than by the project ironically started in the book last mentioned, of *burning down London*, by way of rousing this whole nation to unexampled exertions of manufacturing industry.

The gentle reader may possibly inquire why we have bestowed so much space and time on the consideration of the thesis before us. We answer, for three reasons; 1st, Because we delight to indulge ourselves in the contemplation of the important subjects which it suggests to our minds; 2^d, Because we were fearful that the sort of authority, with which this production has been ushered into the world, might give a currency to its errors; 3^d, and lastly, Because we were willing to expose the danger which authors incur, by venturing on the investigation of questions for which they are totally unfurnished. However imperfectly we may have succeeded in the attempt to convey to our readers some original information on the state of our Asiatic dominions, we are, at least, sanguine enough to believe, that we have proved the subject of this thesis to be considerably removed above the grasp of our English academics, and that those who may honour these strictures with their perusal, will beware of receiving their impressions, on matters connected with modern India, from men who are much better acquainted with Porus and Sandracottus, than with Holkar and Scindia. At the same time, prolix as this article may appear, we take some credit for our forbearance in not still farther extending it; as the *catalogue of Mr Cockburn's mistakes*, which we have exhibited, might have been doubled with the utmost facility.

The style of the Dissertation, which we are just about to close, is usually of that species which does not particularly challenge criticism; without ornaments—and not ambitious of them; poor—and content. Occasionally, however, that sort of fine writing is attempted, which consists in yoking a spare-epithet to every substantive, and in such clauses as this, 'Bloody was his march, and rapid and resistless,' &c.

ART. XVII. *Reflections on the Commerce of the Mediterranean ; Deduced from actual Experience during a Residence on both Shores of the Mediterranean Sea, containing a particular Account of the Traffic of the Kingdoms of Algiers, Tunis, Sardinia, Naples and Sicily, the Morea, &c. ; With an impartial Examination into the Manners and Customs of the Inhabitants in their Commercial Dealings, and a particular Description of the British Manufactures properly adapted for each Country ; shewing also, the Policy of increasing the Number of British Consuls, and that such Advantages may result to the English, by holding Possessions in the Mediterranean, as nearly to equal their West India Trade.* By John Jackson Esq. F. S. A. Author of the Journey over Land from India. London, Clarke. pp. 222. 8vo. 1805.

THIS is a book of a very useful class. It contains the results of a practical man's experience in a most important pursuit, and is immediately addressed to those who are disposed to engage in the same line of occupation. When the employment of capital is daily becoming more difficult from its accumulation, and when there seems reason to dread that, ere long, some very wide channels will be shut up which it now occupies, mercantile men are under no small obligations to those who suggest new sources of profitable speculation, and furnish not only a general outline of the spot where the gains may be reaped, but a chart of the route which leads to it. The only legitimate encouragements to commerce, indeed, consist in the diffusion of such valuable information ; and though no one can be sanguine enough to expect that publications of this sort will produce their effects directly, by engaging a considerable body of capitalists to embark in the proposed adventures, yet it is clear that they lead ultimately to the same consequence, by tempting one or two speculative individuals to follow the new line of trade, which soon becomes sufficiently attractive from the obvious consideration of their success.

Mr Jackson's book is full of details which have every appearance of accuracy, and are related without any affectation. The reasoning, which occupies but a small proportion, is in general correct. A number of curious facts, interesting in a speculative point of view, may be gleaned from his statements ; and though the style, as well as the arrangement of the materials, bespeak an author little practised in the art of composition, the air of simplicity and plain sense which characterize the whole book, would atone for greater literary defects. We purpose to give an abstract of the general positions most dwelt upon in the course of it, and a few specimens both of the more speculative information above alluded to, and of the manner in which our author has delivered his practical lessons.

That the commerce of the Mediterranean in general could occupy a much greater capital than is at present embarked in it, may

may be made apparent by a variety of considerations. It will be sufficient to mention the high rate of the profits which this trade now yields. Our author asserts that the gain is frequently thirty and forty *per cent.* from port to port along the coasts of the sea, and for very short voyages. The different nations which surround it have a decided preference for dealings with English merchants, and for British manufactures and colonial produce, over those of France. The superior excellence of our wrought commodities, as well as the greater proportional cheapness of our freight, is sufficient, it would seem, to counterbalance the greater length of the voyage; and the scale would be turned decidedly in our favour, by the high character of the nation in its mercantile dealings. Yet notwithstanding these advantages, it is not an uncommon thing to see the whole ports of a nation filled with French shipping, and scarcely to meet with a single English flag. Such facts can only be accounted for, upon the supposition either that the profits of some other employments of stock are higher, or that there is some check to the interference of English traders in the commerce of the Mediterranean, which does not operate against those of France. We shall afterwards mention, more particularly, what, in our author's opinion, this check is. At present, we may remark, that the coasting trade of the Mediterranean seems to be less considered than it deserves, if there is any truth in the assertion, that vessels will frequently lye in port waiting for their cargoes several months, at an expence of four or five hundred pounds, when so great a profit as thirty or forty per cent. might be obtained by the transport of goods from port to port, while the assortments are making up. The instance of Leghorn is specified as a proof of this; and if the only cause of such impolicy is the ignorance of our traders, Mr Jackson has contributed his share to remove it, in the full information which he here details. The extent of the French commerce with the Mediterranean states, may be estimated from the fact, that in one year (1797) the merchants of Marseilles, alone, loaded in the different ports of Tunis above three hundred sail of vessels, from eighty to three hundred tons burthen.

According to our author, the main obstacles to the advancement of the British trade in the Mediterranean, are want of consuls in the different ports, and of a few convenient settlements to furnish entrepôts and harbours. We decline entering here into so extensive a discussion as the latter of these considerations must suggest. But the policy of increasing the number of British commercial agents in the foreign countries with which it is the interest of our merchants to trade, can scarcely admit of a doubt. The impositions practised by persons assuming the title, are well known; and the difficulties which our traders experience in carry-
ing

ing on their business at ports where no regular consul resides, are strongly illustrated by the statements of the work before us. It is clearly expedient that such obstacles to the employment of capital should be removed; and the conduct of the French government in this particular, if Mr Jackson may be trusted, has been attended with great success. We may remark, however, that our author greatly exaggerates the uses to which consuls are properly subservient. According to him, the chief impositions practised by our foreign vice-consuls, consist in the extravagance of their charges upon the cargoes which they are commissioned to prepare by the merchants of this country. He shews that a profit of thirty-five *per cent.* is really gained by them, under cover of the trifling nominal commission; and instances the fact of Italian houses, at Leghorn, supporting themselves in great splendour upon the sales of two Newfoundland ships *per annum*. He is here obviously confounding things perfectly distinct. The duties of a consul appointed to assist the traders of his country in their differences with the government where he resides, and to watch over their rights when attacked by foreigners in places where the ordinary administration of justice is irregular, are quite distinct from the functions of a mercantile correspondent; and although the establishment of commercial men as consuls for the above general purposes, may greatly facilitate the mercantile transactions of his countrymen, by furnishing respectable correspondents, yet it would be altogether absurd in any nation to view this as a primary motive for establishing consulates, and thus to hire persons as factors for its merchants, in countries where the natives were not deemed worthy of trust. The particular facts alluded to upon this topic, we feel somewhat disposed to question. That merchants may be extremely ignorant of the places or speculations which are open to their capital, we can easily admit. That various accidental circumstances may operate to prevent them from entering into these profitable employments so speedily as their interest would require, might also be granted; but after they have once occupied the new ground, and engaged in the whole details of the business, as our author admits them to have done in the cases referred to, we presume it would be absurd to suppose that they can remain blind to the most gainful methods of managing it. If their foreign correspondents impose upon them, to the extent of above one third of all sales and purchases, as Mr Jackson asserts, the trick must speedily be discovered. If all the native factors persist in demanding the same high premium, under the cover of the nominal commission, we may be assured that the sums actually taken are the real and just profits of the agent; and if the British trader, who sends two Newfoundland vessels in a year to Leghorn, sup-
ports

ports an Italian family in a great style, it is either his own fault, or the necessity of the case, if he cannot maintain an English clerk there for less. Our author tells a story, by no means credible, in illustration of the impositions which he complains of; and we mention it as one of the very few inaccuracies, of this description, into which he has fallen. 'The charges of factors in most parts of the Mediterranean, he observes, are uniformly thirty-five *per cent.* above the sums actually disbursed. In order to account for this universal ratio of what he terms imposition, he states, that the Italian servants whom he employed, always overcharged him in the same proportion when they made purchases for either his household or ships; that these people require no wages, provided they have the privilege of going to market; and that, upon inquiry, he traced the practice to the priests, 'who come in for a considerable share' of the booty, and 'compelled them to it as a method of making the heretics contribute to their support.' This, Mr Jackson gravely assures us, is universally the case among all the nations which have faith in eternal absolution,—as if an Italian, Greek, or Ragusee, could not cheat a foreigner without the instigation of his priest.

When the trade of the Mediterranean shall have received the attention which it deserves from the merchants of this country, and the encouragement which the Government ought to give it, by the removal of the obstacles formerly pointed out, our author is of opinion that it will rival the commerce of our West Indian colonies in the amount of the shipping which it can employ. Above two hundred ships, of more than 200 tons, may find employment in the direct trade between Britain and the Mediterranean, without including the fish-trade. A great number of smaller vessels, perhaps not less than a thousand, might be employed in the carrying or coasting trade of that sea, and in collecting cargoes for the larger ships to bring home. The trade of the Black Sea opens a wide field of speculation, hitherto scarcely entered upon. The profits of a voyage from thence to the Mediterranean, our author assures us, are almost incredible; and he calculates the total number of vessels which may be required for the whole of this extensive commerce, at two thousand of all sizes. 'Every intelligent merchant, (he observes rather awkwardly), and even his Majesty's Ministers, by giving this subject their serious attention, will very soon be convinced of the great benefit the nation will derive from it.' Into the accuracy of his particular calculations we do not presume to inquire; but there is one general comparison, stated between the benefits of the Mediterranean and West Indian trade, which a man may reject without any pretensions to a practical knowledge of either. Mr Jackson

conceives the former to be twice as beneficial as the latter, because it is carried on altogether with foreign nations. 'Traffic, then, according to him, is always a gain made at another's expense; and by trading with your own countrymen, you are in fact working their ruin.

Some of the most useful information contained in this work, is that which relates to the faithlessness of the nations or sects who have no flag, or whose flag is not respected by others; a point, which merchants trading in the Mediterranean cannot sufficiently attend to. The variety and extent of the chicaneries practised by the subjects of the petty states in its neighbourhood, and by the tribes which belong to no particular government, are not generally known: we shall here notice a few instances. In the Barbary States the Jews are very numerous. However solemnly they may have bound themselves in any contract with a European, they will not abide by it, if the smallest gain can be made by breaking it, unless the particulars of the agreement have been previously registered in one of the European consular offices, and samples deposited. In most other places they are bound by agreement in the presence of a broker. The Greeks are still more faithless than the Jews. Being oppressed, rather than neglected by their own government, and finding all representations in vain, which they can make for redress against injuries or insults of foreigners, they take the law, says our author, into their own hands. 'When a Greek vessel is insulted by a stronger ship of any other nation, the crew submit in patience; but the first vessel of inferior force belonging to that nation which they meet is sure to suffer for the insult. The Greeks will destroy every soul on board, and then plunder and sink it. So that meeting with a Greek and with an Algerine may be considered as almost equally dangerous. Although the Armenians are much more to be depended upon than the Greeks, in the countries where they chiefly abound, no man can travel from one province to another without a passport; and the Turks, employing them in almost all their commercial transactions, protect them in their traffic, and even treat them with some respect. Our author affirms, 'from his own knowledge and experience, that the inhabitants, in general, of the hereditary dominions of the house of Austria are the most virtuous people in Europe.'

It is not generally known that any material changes have of late years taken place in the political situation of the Barbary States. Our author informs us, that Tunis, the most considerable of these, has been rapidly improving since the administration of Sidi Mustapha, the late prime minister. He encouraged the cultivation of corn and olives, which now form the principal
articles

articles of exportation. 'This,' says Mr Jackson, 'has served much to civilize the inhabitants, who, from a state of perpetual warfare with the Christians, and often amongst themselves, begin now to feel the advantages of commerce; and the duties on exports at present form the greatest part of the Bey's revenues.' p. 55. The beneficial effects of this improvement are, however, disclosing themselves slowly and partially; for we learn from another passage, that the Bey collects his annual revenues by means of a large army,—that every thing must be done by force,—that, without it, the tribes of the interior would pay no tribute,—and that, in consequence of this unsettled state of the country, 'very little commercial intercourse can be carried on from one province to another.' p. 75. An exclusive company has obtained from the Bey the monopoly of hides and wax, two very considerable articles of exportation. This body, for a certain yearly sum, and for undertaking to clothe the troops, has the privilege of buying all the wax and bullocks' hides produced in the kingdom, at a stipulated price. It is somewhat singular, that in many parts of Italy the governments should have adopted this African custom to a certain degree, and claimed the hides of the oxen slaughtered within their jurisdiction.

No part of Europe, with the exception, perhaps, of some districts in the Turkish dominions, is so little known as the island of Sardinia, although its name is as familiar to us as that of France or Italy, and its situation places it in the neighbourhood of the most civilized quarters of the globe. Mr Jackson has recorded a few particulars of this island, which may be thought worthy of notice. It is naturally extremely fertile, producing wine and grain, the latter in such perfection, that the Sardinian bread is equal to any in the world. There is an internal navigation from the north-west to the south-east corner, fit for small craft. The inhabitants of the country are little better than savages; they dress themselves in goat-skins with the hair outwards, and never shave the beard; they go always armed, and are all thieves and robbers; they scruple not, for the smallest booty, to murder any stranger that falls in their way; and no one can travel with tolerable safety, unless he is not only well armed, but accompanied by guides and guards of the country. It is even unsafe for a ship to wood and water on the eastern coast of the island, without having its crew well-armed. The contrast between the natives of the country and those of the capital, is represented as very striking. The latter scarcely ever venture beyond their walls, and live in a style of absurd pomp and affectation. Every one above the lower ranks wears a court dress upon all occasions, and this fashion extends even to the in-

ferior orders, on holidays. The facilities of this island for commerce, both with the rest of the Mediterranean, and with places beyond the Streights, are amply illustrated by the details of Mr Jackson.

The statements of our author are in general so very accurate that we think it right to extract the following positive assertions with respect to the effects of olive oil upon the human body.

'In the kingdom of Tunis, the people usually employed as *coolies* or porters, are, in general, natives of Gereed, or the country of Dates, about 300 miles from the sea coast. Their dress is, in general, a wide woollen coat, of its natural colour, with short wide sleeves over, wrapping round the body, and tied round the waist with a cumber band: they never wear a shirt, and seldom have either trousers, shoes, or stockings; they have always a scarlet woollen cap upon the head, and sometimes a coarse white turban. Those coolies that are employed in the oil stores seldom eat any thing but bread and oil: they smear themselves all over with oil, and their coat is always well soaked with it. Though the plague frequently rages in Tunis in the most frightful manner, destroying many thousands of the inhabitants, yet there never was known an instance of any of these coolies, who work in the oil stores, ever being in the least affected by it. In the summer, it is customary for these coolies to sleep upon the bare ground: we have frequently seen in the night scorpions, and other venomous reptiles, running about them in great numbers, yet we never heard of a single instance where the coolies were ever injured by them. Nor do the musquitoes, which are always very troublesome to other people in hot climates, ever molest those people, though their face, hands, and arms, from their elbows, are exposed, as also their legs and feet: any other people, being so much exposed, would be nearly destroyed by the musquitoes. In Tunis, when any person is stung by a scorpion, or bit by any other venomous reptile, they immediately scarify the part with a knife, and rub in olive oil as quick as possible, which arrests the progress of the venom. If oil is not applied in a few minutes, death is inevitable, particularly from the sting of a scorpion. Those in the kingdom of Tunis are the most venomous in the world.'—'The strength and agility of these coolies or porters (our author adds) are almost incredible. Having a great many ships to load, we employed several of these people, and have frequently seen one of them carry a load upon his back, which weighed half a ton English weight, a distance of thirty or forty yards.' p. 64. *et seqq.*

In pursuing the details of the Mediterranean commerce, Mr Jackson's information is extremely full and distinct. He seems to have noted down exactly those parts of the practical knowledge acquired during his residence, and mercantile transactions, on the spot, which are most requisite for the instruction of those who are engaging in similar speculations. He gives us lists of the goods most in demand at each particular place—with the articles

articles of which assortments should be made up, and the quantity of each species of goods—tables of coins, weights, and measures—notices of the prices of exportable produce in the different markets—sketches of the kind of adventures most likely to succeed—hints respecting the trading customs and laws immediately affecting commerce; with a variety of other valuable matter, for an account of which the work itself must be consulted. Several of the practical documents, the result of his own experience, are of a more extensive use than the mere trade of the Mediterranean. We believe the directions about curing meat for ships' stores, p. 91. *et seqq.* to be extremely valuable, and applicable to that service in all hot climates.

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¶ Although we have uniformly declined to lay before the public those remonstrances to which we are exposed by our situation, and which could not be printed without involving us in endless controversies, we have always declared our willingness to correct any misstatement in point of fact into which we may have been betrayed, and even to insert any explanation which an author may be tempted to give of the statements which we may have misapprehended. It is with great pleasure, therefore, that we now publish the following letter of M. De Luc, in which, we think, he exculpates himself completely from the imputation which was rather rashly thrown upon him in Dr Robison's edition of Dr Black's lectures, and repeated by us—we think fortunately for all parties—in our review of that publication.]

TO THE CONDUCTORS OF THE EDINBURGH REVIEW.

GENTLEMEN,

AT my return from the Continent, after an absence of some years, I have read the account you have given some time ago, in your No. V., of *Dr Black's Lectures*, published by Mr Robison, and in it a statement concerning me, which I shall here extract from your pages 19. to 21.

‘ Dr Black had many gentlemen of Geneva in 1763, in particular a Mr Odier, who corresponded with M. de Luc, and communicated to our countrymen several of that gentleman’s meteorological observations. A Swedish gentleman, from Stockholm, was also much in the company of Dr Black and his friends, about the year 1768. In 1772, Mr Wilcke of Stockholm read a paper to the Royal Society of that city, in which the *absorption of heat by melting ice* is described; and in the same year, M. De Luc of Geneva published his *Recherches sur les Modifications de l’Atmosphère*, in which the doctrine is, with much less accuracy, employed to explain some meteorological facts. Our readers will probably have anticipated the conclusion which this statement of circumstances forces us to draw,—That both the one and the other of these gentlemen, in all probability, owed their knowledge of the *absorption of heat* to the diffusion of Dr Black’s discoveries, through the medium of his lectures. But the subsequent conduct of M. De Luc deserves our further attention, and leaves as little doubt, with respect to his *culpability*, as can exist upon a question of this sort.

‘ About the year 1782, Dr Black was informed that Mr De Luc earnestly wished to become the editor of his observations upon latent heat, in order to secure Dr Black’s claim to the discovery. In consequence of repeated solicitations, Dr Black gave his friend Mr Watt permission to communicate the leading points of his theory, and instructions to perform the experiments before Mr De Luc. They trusted in the promise of the Genevese philosopher.—The publication at last arrived; it consisted in *refutations of the claims* urged by others, and an *assertion* that the *discovery of latent heat* was Mr De Luc’s own. Mr Watt wrote a letter to Mr De Luc, containing a full explanation of Dr Black’s discoveries, and insisted that it should be published in the next volume of the work. It appeared accordingly, but was accompanied only by the acknowledgment of the satisfaction Mr De Luc received from learning that his own system had so able a defender as Dr Black.

‘ From the foregoing statement it appears, that Mr De Luc published a work containing a few crude ideas on the combinations of heat; that he formed a design to pass for the author of the doctrine, by completing his knowledge of the theory, and twilling his former vague statement into some kind of similarity; that for this purpose, he applied to the man whom he knew to be the discoverer, and obtained from him a full account of the matter, under the pretext of defending his claim against others; that, instead of fulfilling his promise, he only refuted the claims of others,

is

in order to bring forward *his own*; converted the documents which he procured to his own use; and concluded, by *politely laughing* at the person whom *he had thus defrauded*. Such is the amount of the *impression* made by Mr Robison's narrative in the *eighth note* to the first volume.'

You consider yourselves, Gentlemen, that *statement* under a very serious aspect; for you add, 'Nobody could hesitate to pronounce, that the *conduct* here *imputed* would be deemed common IMPOSTURE, if avarice, not *vainly*, had been the *motive*, and *no-ney*, not *fame*, the end.' I go even farther; no difference of *motive* or *end*, could efface the character of such a *conduct*; it would be a most infamous *imposture*. But you had said in the beginning, p. 9., 'we are almost inclined to hope, that Mr Robison, from whom *our authority* is derived, has been *misled* in his decisions;' and you have concluded, p. 21., in this kind manner, 'we wish that *some friend* of the Genevese philosopher *would step forward* to clear him from *so foul a charge*.' This makes me address to you what such *friends* as Truth and Evidence bring forward in my favour; with the hope that you will give it a place in the same record in which you have consigned the accusation, or Mr Robison's *mistake* through you. In doing this you will satisfy your honesty; and I shall also be satisfied; as, from the fatal circumstance of Mr Robison's death since his accusation, and your repetition of it, *and* *now*, it is the only reparation I can expect. He lived, I have no doubt that he would have acknowledged the truth of what I am going to relate to you, which I hope you will not think uninteresting to your readers, as constituting an important part of the history of physical science in the last century.

Mr Robison's statement concerns two different PERIODS, the *second* of which only gives importance to the *first*: for, as the date of 1763, assigned to my correspondence with Dr Odier, is a great *mistake* of Mr Robison, its real *date* would have been sufficient to dispel the idea of *plagiarism* with respect to my first work. But the charge concerning the second being of a more serious nature, and involved in more intricate circumstances, I must, by the very history of my pursuits, connected with the times, make it evident, that my steps in the *second period*, were only the consequence of what had preceded in the former.

My work, *Recherches sur les Modifications de l'Atmosphere*, was printed at different times, beginning in 1764; but, when the edition was completed in 1772, my good genius prompted me to place at the head of it, an *Introduction*, containing this: 'Extrait des Registres de l'Acad. des Sc. de Paris, du 30 Juillet 1762—Mess. de la Condaminie et de la Lande, qui avoient été nommés pour examiner un ouvrage, intitulé, *Recherches sur la Loi des Condensations*'

sations de l'Atmosphère, et sur la Manière de mesurer par le Baromètre la Hauteur des lieux accessibles, par M. J. A. de Luc, Citoyen de Genève, ayant fait leur rapport, l'Académie a jugé, que cet ouvrage pouvoit être regardé comme un des meilleurs dont on ait enrichi la Physique de puis longtems, et qu'il est très digne d'être approuvé. En foi de quoi j'ai signé le présent certificat, à Paris, le 4 Aout, 1762.—Grandjean de Fouchy, secr. perp. de l'Acad.

This date is already anterior to the time when it is supposed I corresponded with Dr Odier; and it is sufficient for ascertaining all those which are to be found in the work itself. It may be seen, first, that the experiments on Mount Salève, from which was derived the formula mentioned in the certificate, had been made between 1757 and 1760; and the account of those experiments in the work shews, that they could not begin, before the principal of those by which I had fixed the construction of the thermometer and the barometer, the origin of which, as I shall explain, goes back to 1749. The great number of experiments of various kinds in which I was then engaged, especially on the THERMOMETER, being described in my work, I shall only mention those which relate to the fundamental limits of the state of that important instrument.

One of these limits was called the term of congelation, particularly by Mr de REAUMUR, whose thermometer was much used on the Continent: it was understood as the temperature at which water begins to freeze. But, when I came to try that point, I found it very far from fixed; of which I shall give a very striking instance in a water thermoscope. This singular instrument, on which a great number of experiments may be seen in my work, could not support the boiling heat necessary to fix its scale, without carefully exhausting the air contained in that water; but I found, that, after this operation, it could support, without any appearance of ebullition, a much greater heat than that of boiling water under the actual pressure of the atmosphere; a circumstance to which I shall return. When I transported these thermoscopes, from the temperature of my room, to that of the external air during frost, they first descended by small steps, were a moment stationary, then had a small retrogradation, and remained fixed. One of these instruments had remained many days out of the window, in a constant frost, without any appearance of alteration in the water; which determined me, to observe the state of that water, by breaking the ball. I broke it on a faucer, first left to take the external temperature, then 14° of Fahrenheit. The water ran out quite liquid, but was instantly frozen on the faucer. This was a decisive proof, that a certain temperature is not

not the only condition of *congelation*; that it depends also on other circumstances, which being variable, could not afford, as M. de *Reaumur* had supposed it, a *fixed point* for the *thermometer*.

These experiments on *congelation* directed my attention to a process of M. Michely Ducrest, that of using *melting ice*, of which, on the contrary, I had experienced the *constant* temperature; but I resolved to submit it to a trial, in which I could observe the march of the phenomena, before, and during the *melting*. 'This is an experiment related as follows in § 438. of my work.

'In the severe cold of February 1755, I suspended in *water*' (this being contained in wine glasses) 'several quicksilver *thermometers*, the lower point of which' (taken in *melting ice*) 'was marked with a *thread* on the naked tube, part of which and the ball, were immersed in that *water*, (exposed to the external cold air). The beginning of the *congelation* was not indicated by the same points of the *thermometers*; the *water* was still *liquid*, though the quicksilver was sunk more or less under the *thread*. When the *water* was entirely *frozen*, it cooled gradually more, till it had attained the actual *temperature* of the air, the *variations* of which, the *thermometer* enclosed in the *ice* followed (only more slowly in proportion to the thickness of the ice) as did those which were immediately exposed to the air. I brought near a chimney fire, these glasses with their *thermometers*, (turning them slowly). The quicksilver *ascended* then gradually in the tube; it had attained the *thread*, when the *ice* began to *melt*, and the *thermometers* remained *fixed* at that point, as long as there remained a crust of *ice* all around their ball; but, as soon as an opening was made in that crust, or when the *water*, much *heated* around it, penetrated from above between the ice and the ball, the quicksilver rose suddenly in the *thermometers*.

'That series of experiments could not be owing to the *diffusion* of Dr Black's lectures.

When I considered also the *upper point* of the thermometric scale, taken in *boiling water*, it was already known, that its degree of *heat*, though *fixed* at the moment it was tried, changed with the *atmosphercial pressure*: therefore, I previously determined a certain height of the *barometer*, by which should be fixed in *boiling water*, the upper point of the *thermometer* which I intended to employ in the different kinds of experiments and observations which I had in view, and, in particular, on the *boiling point*.

I have already mentioned, that, when *water* has been carefully deprived of *air*, it can, without *boiling*, support a much greater degree of *heat* than that of *boiling water* in the same place; an increase of *heat* which I have carried as far as 21° of Fahrenheit: and I could have gone farther, had not the difficulty considerably increased, as I have explained in § 1072. of my work.

work. But in the earliest part of these experiments, I had also found, that even *spirit of wine* thus deprived of *air*, could, without *boiling*, support a greater *heat* than that of *boiling water*; though, before the *air* is expelled, it *boils* by a degree of heat not exceeding 183° of Fahrenheit, or $66^{\circ}.6$ of my scale, which I found afterward, by observations made on M. de Reaumur's own *thermometers*, to have been the point which he called 80. The first of these experiments, led me to many others on the phenomenon of *ebullition*, which I found intimately connected with that of common *evaporation*, the earliest object of my experiments and thoughts on natural philosophy, from a circumstance which I have already mentioned, and shall now relate.

In the year 1749, the phenomenon of *dew* was a great object of attention among natural philosophers, between whom two opposite theories were agitated; some supposed that *dew* ascended from the *earth*, and others, that it descended from the *air*. This difference of opinion, on so common a phenomenon, appeared to me very remarkable; and I undertook a course of experiments, with the hope of discovering some decisive fact. But I was disappointed: for the result of a great number of various kinds of experiments and observation; was only this, that *dew*, attentively studied, was a most obscure *atmospheric phenomenon*, the nature of which could not be determined, without a deep study of *evaporation*, a clear idea of the phenomenon of *moisture*, and more knowledge in *meteorology*. Such was the origin of the long course of experiments and observations, the real concatenation of which in my first work, and from this to the second, will thus be better understood. But I return to *ebullition*.

The circumstance, of a *fixed* degree of *heat* in *boiling water* under the same *atmospheric pressure*, but changing with that *pressure*, carried my thoughts farther than the determination of a *fixed point* for the *thermometer*; for this in itself was a great phenomenon, which I conceived to be connected with other phenomena on our globe, by some common *cause*. But, in order to be guided in my inquiries on that cause, the *law* of the phenomenon was first to be accurately determined; and my experiments on that object began in 1762, in a journey from Geneva to Genoa, through Mount Cenis, the particulars of which are related in § 450. of my work. I formed afterward a plan of experiments on higher mountains, in which I succeeded in 1770; and the *formula* I deduced from all these observations, to determine the degree of *heat* in *boiling water*, from the observation of the *barometer*, was found exact by M. de Saussure, on the top of *Mont Blanc*, where water *boiled* at 68.9 of my scale of 80 degrees, the uppermost of which is determined by the height 27 French inches of the *barometer*, which was then 16.08.

No course of experiments could bring on more subjects of consideration on *physical causes*, than the two kinds which I carried on in my travels on mountains; the measurement of *heights* by the *barometer*, and the changes of *heat* in *boiling water*. The modifications of *evaporated water* in the atmosphere had been my earliest view; but they became still an object of greater attention, by the *anomalies* which I found in the result of my *barometrical* observations, after having determined the direct effects of the differences of *pressure* and of *heat* on the *density* of *air*. I had already found (Part IV. chap. ix. of my work), that *evaporation*, from the lowest to the highest temperature, was one and the same process, owing to a *peculiar union* of *fire* with *water*, which I had defined, explaining how it produced the *cooling* of *liquids* which *evaporate* (§ 693. and 972.); and I had found also, that the product of *evaporation* was a *fluid* much *lighter* than common *air* (§ 675). From this last determination, I ascribed to unequal mixtures of *aqueous vapour* with the *air*, the *anomalies* in the results of *barometrical* observations, (§ 667. & seq.) And besides, not doubting that *aqueous vapour* was to accumulate in the atmosphere, especially in its upper region, at last to produce *rain*, I formed, on the *variations* of the *barometer* and their connexions with the *weather*, a system exposed at some length in my work, (§ 709. & seq.)

With this last idea, early formed in my mind, what was my astonishment when, travelling on high mountains, I observed symptoms of *dryness* in the *air*, which I had never observed on the plain! That circumstance determined me to think at last of obtaining a real *hygrometer*, the want of which, in atmospherical observations, I had felt long before. After many experiments and reflections, in which the determination of the true *essence* of *moisture* had produced the greatest difficulty, I obtained a first *hygrometer*, and as soon as I had sufficiently studied the march of that instrument, I set off for the same mountains on which I had observed those unexpected symptoms of *dryness*. My astonishment then increased; for the circumstances that attended these new observations were such, that they shook all the former *meteorological systems*, mine included, and opened quite a new field, in which, though I had much frequented it, I found, and find myself still, little advanced, except by having shut up delusive roads, and pointed out those which give hope of discoveries.

This great change in the *meteorological* prospect happened in August 1772, at a time when I had formed the design of coming to England. I would not therefore stop any longer the edition of my work; and while the latter part was printing, I wrote separately an account of these last experiments, and of the observations

tions and principles by which I had been directed. In that paper, embracing already, though still confusedly, (as is the case in every beginning of pursuit), a greater field, I began to consider, in a more general view, the modification of *water*, by the intervention of *fire*: and I proposed, for reasons which I explained, to give a particular name, that of *humor*, to the substance which appeared under the different forms of *ice water*, and *aqueous vapour*: a view which, by new experiments and observations, has been since so determined, that in a work which I have published in 1803, I have proved that the true character of *moisture* is not attached to *water* (that is to say, *melted ice*), but only to *humor*, or to the *elementary substance*—which is *chrySTALLIZED* in *ice*, after *liquidity* and a certain diminution of *heat*—*liquid* in *water*, by a certain combination of *fire*, above a certain *temperature*—*expandible* with more *fire*, by a process that takes place at every *temperature*—and susceptible of various *combinations* in *solids* and *gases*. But this is an anticipation.

With the composition of the above mentioned paper, ends the *first period* of the history which I have been obliged to give of my pursuits; and if I have entered into some details, it is only on account of the *SECOND period*, in which I am charged with much more than *plagiarism*: For, had I had only this to repel, I could have done it at once, as I am going to do. But that would not have been sufficient for the more serious imputation. It was necessary for me to make it evident, by stating the origin, the views, and the progress of my researches at Geneva, that I only followed them in England, with the help of the general progress of discoveries.

Now, Gentlemen, as soon as I had seen, in your Review, the accusations against me, and, first, that of having derived from *Dr Odier*, in 1763, by a communication of *Dr Black's* discoveries, the *crude ideas* of *combinations of heat* which I had expressed in my work, I wrote to Geneva, in order to be more precise than I could be from recollection after 40 years, in what I should oppose to that erroneous supposition. I have now received a declaration of *Dr Odier* himself, stating, that he only arrived at Edinburgh in *September 1767*, and that he had not written to me more than *three letters*, which were found by my brother among papers which I had left at Geneva; and from these letters, the exactness of my above account will be ascertained without any possibility of doubt.

The first was from Edinburgh, dated *July 27th, 1771*: in it *Dr Odier* answered a letter which I had written to him, after the communication made to me by his father, of a dissertation he had published at Edinburgh on *sounds and sonorous bodies*. In that

that letter he did not mention Dr Black at all; but, speaking of my pursuits, on the occasion of something I had mentioned, he informed me, that *Dr Cullen* had some view to apply to the *measurement of heights* the connexion of the *degrees of heat in boiling water*, with *atmospherical pressure*, instead of the observations on the barometer. The second letter, of January 1772, was in answer to a second from me, in which I had made some remarks on Dr Cullen's views, and informed him that my work on the *modifications of the atmosphere* would be soon published. He had communicated that intelligence to Dr Cullen and to Dr Black; from the former, he explained more fully his reasons; and from Dr Black, he told me only, that he had a very ingenious *theory* on the *combinations of heat in water and steam*, which he would explain to me at his return to Geneva. Some time after, he left Edinburgh. His third letter was dated from London, October 26th, 1772; and when I received it, my work, of which I had published a *prospectus*, was come out of the press. Dr Odier had this *prospectus*, in which, in particular, were mentioned my experiments for discovering the *ratio* of the *dilatations* of the quicksilver in the *thermometer* with the *increases of heat*; and he informed me, that Dr Black had made similar experiments, to the same purpose. It is therefore evident that this first work, in which I am aware of many defects, contains no *plagiarism*; which is the only point on which I have been called upon, and care, to justify myself.

Such, Gentlemen, is that *correspondence*, from some faint recollection of which Mr Robison had derived the idea that it had been my guide in Geneva. Dr Odier arrived at Geneva soon after his last letter; and for the little time I remained there, I had the pleasure of living with him in the same house; a time which I shall always recollect with satisfaction. We had much conversation on the subject of his letters, finding that, not only on *one* object, but on *three*, my experiments at Geneva had met with those of the Edinburgh philosophers; Dr Cullen's on the *law of boiling water* corresponded with the *atmospherical pressure*; and Dr Black's, not only on the *combinations of fire*, but on the *march of the quicksilver thermometer*, in which I had been directed by M. Le Sage. This I have acknowledged, as I have done in all my publications, for any first ideas, *known or unknown*, which I had received from others.

The coincidence of unconcerted experiments on three different objects, confirmed me in an idea which I had expressed in my work, when tracing the history of former pursuits, in the roads which I had followed, namely, that the accusations of *plagiarism* were often unjust, and the determinations of *priority*

on comparative *dates*, of no consequence; as there was a general cause of those *encounters* at the same time, that of the *progreſs* of *ſcience*, by which attentive men were placed in the ſame periods at the *entrance* of new *roads*, which they follow without *imitation* of each other. So that the hiſtory of ſcience is uſeleſſly loaded with accuſations of *plagiarism*, and claims of *priority*, which withdraw the attention from the main point, the *progreſs* of the ſcience itſelf, and create diſcord among thoſe who ought to *unite* to forward it.

Dr Black had no doubt made his experiments without any knowledge of mine, as mine were alſo carried on without any knowledge of his. It would not have given me the leaſt degree of pain, if, when I was informed of his experiments, it had been with the circumſtance, that he had PRECEDED me in *time*; and I was happy to learn, that he had carried them *farther* than me, by attending to the *abſolute quantities* of what he called *latent heat* in *water* and *ſteam*, which, according to my ſystem, and uſing his expreſſion, I have ſince called *latent fire*. That further ſtep, with all the other diſcoveries with which that epoch was pregnant, by the progreſs of experimental philoſophy, helped me forward in the principal object of my purſuit, as will be ſeen in the *ſecond period*, to which I now come.

I arrived in London in the month of April 1773; the paper above mentioned having been tranſlated into Engliſh, was read to the Royal Society in June; and in the latter end of the ſame year, I went to viſit Dr Priſtley, at Calne, in Wiltſhire. No body could be more, and I may ſay as much, intereſted as I was, in his experiments on *different kinds of air*, on account of my laſt obſervations in the Alps. For I could not ſee any more poſſibility of finding, in the atmophere, any ſenſible part of the *water* neceſſary to produce *rain*, under the form of *aqueous vapour*, or the *product* whatever of *evaporation*, remaining ſuch; and it had ſtruck me, that with the idea of a fiſt expanſible fluid, *aqueous vapour*, Dr Priſtley's experiments on the *productions*, *transmutations*, and *decompoſitions of aeriform fluids*, could afford ſome thread in that maze of atmophpherical phenomena. He took much intereſt in my remarks, from which reſulted an intercourſe between us; and with that perſpective of a dawn in meteorology, I took up again my reſearches on *hygrology* and *hygrometry*, in which, from that time, I was engaged for above twenty years.

In the year 1776, I had conſtructed a ſecond *hygrometer*, which I obſerved on the Hartzinian mountains, with new and intereſting meteorological circumſtances; and at my return, I preſented to the Royal Society, an account of my obſervations. (Phil. Tranſ. 1777.)

In the year 1781, I made some stay at Paris, where the new aspect of *meteorology* was the principal object of the conversations I had with many members of the Academy of Sciences, especially M. M. de la Place, Lavoisier, Monge, and Vandermonde. Dr Crawford's theory on the phenomena of *heat*, observed when substances undergo certain changes in their nature, was then in great agitation among these philosophers; and the two last had, from the Academy, the special commission to examine and follow that new view.

Dr Crawford had already published, in 1779, his work on *animal heat*, in which he had exposed Dr Black's theory and experiments on *latent heat*, which therefore were by this time sufficiently known: he attributed that phenomenon to an increase of *capacity*, in *water* comparatively to *ice*, and in *steam* comparatively to *water*; an explanation which could be adapted to the expression *latent heat*; for when, in a system of insulated substances, *heat* really diminishes by a change in their *capacity*, that portion of *heat* which disappears may be in some manner considered as *latent*. I mention that circumstance, in order to prove that Dr Black's experiments were well known; and I did not hear any doubt on his originality, though Mr Wilcke had published similar experiments at Upsal, which I knew, from my own case, might have happened without imitation. However, from well known dates, Dr Black had the *priority* with respect to him, and it may be with me also, though it does not appear. But, from that time, as I continued to do in my work, *Idées sur la Météorologie*, I refuted Dr Crawford's theory, by proving the necessity, as well as the reality, of those combinations of *fire* with other substances, which, by depriving it of the faculty of producing *heat*, makes it really *latent* till, by some new chemical process, it is again set free. And the year after, M. M. Lavoisier, and de la Place, followed, by a very ingenious process, one of the inquiries by which I had foretold that Dr Crawford's theory would be proved erroneous. This was to determine, according to his theory, but in various cases, the quantity of *absolute heat*, in order to know if that determination would be always the same; but the results of their experiments were far from that necessary consequence of the theory; and their *Mémoires sur le Chaleur*, in which those experiments were described, shook very much that theory, which at first had appeared of great importance.

Meteorology, as I have said, was my principal object in those discussions at Paris. I maintained the theory of *evaporation* by the union of *fire* with *water*, against the dissolution of *water* by *air*, as a first step toward the explanation of atmospherical phenomena, with the perspective of the *transformations* of *aeriform fluids*;

fluids; an object which was also followed successfully among the chemists at Paris, but with new theories, which I thought contrary to *atmospherical phenomena*, and were to be judged by them. This engaged me to begin at Paris, and afterward to write in England, under the form of Letters addressed to M. de la Place, the same fundamental theory which, with more informations that I shall mention, I began to publish in 1786, under the title of *Idées sur la Meteorologie*; in the *Introduction*, and the course of which, I mentioned these particulars.

All those circumstances were passed, when, in the latter part of 1782, I went to Birmingham, and had the satisfaction of making my first acquaintance with Mr Watt. Dr Priestley resided also there at that time; and after his experiments on *aeriform fluids*, in which he made a continual progress, none could be more interesting to me, than those of Mr Watt on the *steam* of boiling water. He was so kind as to explain to me, not only the construction of his *steam engine*, but his motives for all the essential parts, which were derived from the nature of *steam*; and the modifications of that fluid, which he had thoroughly investigated, were very essential to my pursuits. I traced, in them, the general character of *aqueous vapour*; but with some important circumstances, that I could not have observed, either in the course of my experiments, or from what I knew then of those of Dr Black, which were not made with the same view. I stated that analogy to Mr Watt, to which at first he objected (a circumstance which I have happened to mention in § 553. of my work); but after having more considered the subject, he gave me himself a particular proof of my theory, from a circumstance which he had observed, namely, that the common *evaporation* of *water* deprived that liquid of *as much heat* as it lost by *ebullition*, proportionally to the quantity of *water* which is *evaporated*.

In the intercourse which then began between us, this was our constant object, as equally interesting to us both, though from different motives; and all that I can recollect of my questions with respect to Dr Black's opinions, concerned only two objects, namely, whether, in his expression *latent heat*, he considered *heat* (with some natural philosophers) as only a particular *modification* of the substances themselves, communicable to one another, or as the effect of a particular *fluid*? And what he thought of common *evaporation*, that is, whether he admitted, or not, the *dissolution* of *water* by *air*? I do not recollect his answers.

Some letters passed at that time between Mr Watt and Dr Black, which Mr Watt has been so good as to communicate to me lately; and they agree exactly with my recollection on the principal object, under this point of view,—that I could not form either

ther an *earnest wish*, or any *design*, of becoming the editor of Dr Black's *discoveries*, which were already much spread, as well as his first *determinations* on the *quantities* of *latent heat*. But surely I wished to be well informed of the particulars of his experiments; not to make them *my own*, which would have been as useless as impossible, but to understand better the *progress* made by Mr Watt; and this is what I wished to publish. But as his new steps were connected with Dr Black's discoveries, he thought himself obliged to communicate to him the use which I intended to make of them; and he approved it.

In some of the visits I made afterward to Mr Watt at Birmingham, in which he was so kind as to receive me in his house, I acquired those informations I desired on the *modifications* of *steam* in different circumstances. We had previously projected some experiments on the production of *steam* of *boiling water* in *vacuo*, which he had already made in 1765, and on the *cooling* of *water* by common *evaporation*, both with the view of *comparing* the quantity of *latent fire* in the *vapour* thus produced, with that of the *vapour* or *steam* of *boiling water* under the *pressure* of the *atmosphere*. These *comparative quantities* had been essential for Mr Watt, to analyze an important phenomenon which he made me observe in the *steam engine*; and for me they were very useful to ascertain my system of *evaporation*, and to determine some precise *laws* of *hygrology*, in view of *meteorology*. Such was the object of these experiments, in which Dr Black did not interfere. The doctrine of *latent heat* was known, and taken for granted; and the object was only certain *modifications*, the determination of which belonged to Mr Watt.

Unconscious, therefore, when I wrote my work, *Idées sur la Meteorologie*, of any *engagement* with respect to Dr Black, I neither thought of any *claim* for him or myself, or of *refuting* the *claims* of any others. I exposed only a system on the *combinations* of *fire* and *water*, which had successively been formed in my mind, with a view to *meteorology*. In the course of that exposition, I was to begin by stating some fundamental facts concerning *liquefaction* and *evaporation*; and I naturally began by those which were already published in my former work; adding to them, with grateful acknowledgment, the facts which I had learned from Mr Watt. But these were connected with determinations of *absolute quantities*, as from them resulted the *comparative quantities*, which were our object; and as the *first attempt* at these determinations belonged to Dr Black, I carefully recorded that circumstance.

As all these transactions had passed between Mr Watt and me, in the account of which I desired to be correct; as soon as my first volume was printed, but before it was published, I sent it to

Mr Watt, desiring him to communicate to me his remarks. Among these he made me aware, that from my expression, that Dr Black had been the *first who had attempted the determinations of the quantities of latent heat*, it might be supposed that he had not discovered the *fact* itself. I acquiesced in that remark; and, in consequence, I fully redressed that equivocal expression in an *Appendix* to that first volume. The second was also published, when, in the summer of 1788, I had the pleasure of seeing Dr Black in my house at Windsor; and neither then, nor in a letter which some time after I received from him, had I reason to suppose that he had any complaint against me.

Such, Gentlemen, is the true statement of facts concerning that *second period*. Please to read the *Appendix* above mentioned, and no doubt, I think, will remain in your mind, that if Mr Robison had not, by a defective recollection, transported the contents of an *Appendix* of the *first volume* to the *second volume*, with the idea that it was placed in this by a sort of *compulsion* of Mr Watt, he would not have accused me, nor thus exposed you, by your repeating his accusation, to be troubled with my *apology*. But it is not sufficient for me to have proved my *innocence*, in a case where the contrary would be *shameful*; I must shew you besides, by an instance which belongs to the subject, though episodical, what may be concluded from all my works, how far I am from being eager for *claims of discoveries*.

It is well known, that, founding principally on *atmospherical* phenomena, I have not embraced the new *chemical theory*, commonly called *Lavoisier's*; having found, first, that it is contradicted by *meteorology*, and then explained its facts by another theory, which agrees with the fixed points of that science. Being at Berlin in the year 1800, I wrote a paper on that subject, which was read to a learned Society; and in the course of the exposition, I said this: 'As long as the nature of aqueous vapour was not understood, that is to say, while water in that state was considered as obeying to a certain repulsion, increased by heat, not knowing thus the *latent fire* which it contains in all temperatures, the *first discovery of which is due to Dr Black*, no good *steam engine* could be made.' Then I went on explaining Mr Watt's additions to that discovery, and the knowledge which I had derived from them. There surely I forgot myself; but it would have been too long, and useless to the subject, to make the proper distinction; and I praised with pleasure two men whom I esteemed.

Now, the same paper has served afterwards as an introduction to a work which I sent from Berlin to Paris, where it has been published two years ago, under the title of *Introduction à la Physique terrestre par les fluides expansibles*, in the first volume of which,

p. 102, is the passage above translated; and I have said the same of Dr Black, without speaking of myself, in another work published in Germany. This, surely, is not the conduct of a man eager for his own fame, which even in this letter has been no object for me.

With confidence that you will do me justice by publishing this explanation, I am,

Gentlemen,

Your most obedient humble servant,

Windsor, April 18th, 1805.

DE LUC.

[M. de Luc has been pleased to annex to this letter a very long postscript upon the Huttonian Theory of the Earth, which we are prevented from laying before our readers, in consequence of our resolution to have no controversial appendix to our publication. We are happy, however, to be able to announce, that this venerable philosopher is now preparing for publication an account of the geological travels in which he has been engaged for the last twenty-four years, in which he hopes to throw new light upon the doctrine of stratification, and on the formation of lakes and vallies by the subsidence of the original strata.]

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